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EDITED BY E. C. REGISTER, M. D., AND J.C. MONTGOMERY, M. D.

CHARLOTTE, N. C.

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The Charlotte Medical Journal.

VOL. XV. CHARLOTTE, N. C., JULY, 1899. No. 1.

Antipyretics.*

By Dr. H. L. Baird, Asheville, N. C.

Antipyretics are the remedies with which we reduce temperature, and when we come to consider the fact that nearly all diseases with which we meet are accompanied with more or less fever, we at once see that these remedies have a wide field of usefulness in therapeutics. Notwithstanding the fact that some diseases may run a long and fatal course without fever, we will always find the careful physician taking the temperature of his patients often, and when he finds any considerable rise above the normal, some antipyretic is usually given. This practice may be, and I believe is, the proper one to pursue in most cases, the mistake we usually make, I think, is in the selection of an antipyretic.

Later on in this paper I wish to make some points upon the selection of antipyretics, and to lay special stress upon such as I think are indicated in each particular hyperpyretic condition with which we may have to contend. Recognizing fever as being nothing more nor less than a symptom, or expression of a pathological condition existing in some part of the body, we should at once commence a search for the cause which is producing the fever, and when we have found it our remedies should be addressed to the disease itself and not to the fever.

Liebermiester was manifestly wrong when he went so far as to say, to control the fever was to control the situation. This belief was founded upon the dogma, or so-called doctrine, of Controvia Controviis opponenda, and like many other nonsensical doctrines has had many able advocates. The ancient so-called teleological view that fever itself is curative, has in more recent times had strong supporters in such men as Leyden, Finkler, Welch and others. Sydenham believed that fever destroyed certain injurious substances in the body, and many modern authorities favor this view with the citation of the old axiom, "purified by fire." No good reason can be assigned for such belief except where the agent used to control the fever, destroys the cause which is producing it.

Quinine controls the fever of malarial disease by destroying the plasmodium malaria, and it has been claimed that a simple temperature of 104 deg. F., will do the same thing by killing off the germs. Mercury has the same effect in syphilis, and the salicylates in rheumatism; provided their action can be sustained. These remedies are antipyretics because they are antimycotics; thus alcohol is often a valuable antipyretic in cases of sepsis, and in the hectic fevers of tuberculosis. The thermal death points of organisms which cause the various infectious diseases have been accurately determined, and the view that the body temperature can destroy them is entirely incorrect. Bacteria which do not contain spores are killed at a temperature of from 131 deg. to 136.4 deg. F., while spores will survive any temperature short of the boiling point. Koch tells us that tubercle bacilli thrive best at from 98.6 to 100.4 F., badly at 84.8, and not at all at 102.2 deg. F. This, I am not prepared to believe, nor am I prepared to disprove it, for the simple reason that my knowledge of bacteriology is very limited; but judging from clinical experience alone, I do not believe any sane man could ever reach any such conclusion. The classification of antipyretics which I shall adopt is a very broad one, and may properly be subdivided many times. The two great classes into which antipyretics may be divided are: first, those which *lessen the production of heat*, and second, those which *increase the loss of heat*. The action of those drugs which lessen heat production is not fully understood, but it is supposed that they, in some way, lessen the changes taking place in the body by diminishing the circulation in the diseased part. The heat centre in the nervous system, supposed to be situated in the neighborhood of the corpora striata is said to be influenced by certain drugs, but this, to my mind, is very doubtful, for the reason that if we could act upon the temperature in this way, we could reduce a normal temperature to a sub-normal at will, which we really cannot do with the most powerful antipyretics, except by giving them in such doses as will bring about a very marked depression of the circulation,

*Read before the Buncombe County Medical Society, June 5th, 1899.

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amounting in reality to a paralysis of the *heart muscle*.

In the case of many of the remedies which act upon the temperature by *increasing the loss of heat*, it is easy to understand their action, as it amounts to nothing more nor less than the actual abstraction of heat from the body by the application of cold sponge baths, ice packs, cold baths, cold enemas, and ice, or cold applied to the body in any way. It is highly probable that certain drugs may act as antipyretics by their action upon the nervous system, aside from their action upon the circulation, by simply quieting nervous irritability and promoting rest. An active purging will sometimes reduce a high temperature in an astonishingly short time, but this can only be done in cases where the cause of the temperature is to be found in the alimentary canal, and is due to the removal of the toxines found in the canal, together with its depleting influence upon the general system. In other words the purgative depletes the patient into his own tissues, and carries off the *toxine loaded serum* of the blood through the alimentary canal, thus unloading the blood of a part of its burden in the shape of toxines. The reduction of temperature by the old time practice of blood-letting was not altogether due to the lowering of the blood pressure secured, but to the actual removal of a part of the offending toxines from the blood itself.

I do not believe we have any one antipyretic that can be scientifically administered in a great number of hyperpyretic conditions due to widely different causes—cold water, or ice, applied in some way, externally or otherwise excepted.

As an antipyretic, *per se*, ice is certainly the remedy which should be given preference over all others. It may be administered in all cases of hyperpyrexia without respect to the causes which may be producing such condition, and with a fair prospect of at least producing in the patient a more comfortable state, which is more than can be truthfully said of any other antipyretic known to our materia medica. The means of applying ice in the treatment of fever are numerous, and so well known to the members of this society, that they need not be mentioned at this time. Antipyrine, acetanilid, phenacetine, ammonol, aconite, veratrum, gelsemium, jaborandi, cinchona salts, the salicylates, guaiacol, alcohol, and even mercurials, iodides, and purgatives in general, are all antipyretics, but no one of them should be given in a great number of hyperpyretic conditions without respect to the causes which may be producing the fever.

A word as to the *choice* of antipyretics for the various febrile conditions with which we almost daily meet and I am through.

In malarial fevers of all kinds, we have as a cause the plasmodium, and as a remedy cinchona and its salts, the sulphate of quinine being the best, which, together with a lively touching up of the liver with calomel, may be depended upon to do the desired work well, and with almost absolute certainty. In typhoid fever, *cold externally* and *eternally*, together with an occasional purging with calomel in the early stage, and the free use of alcohol later on, will control the temperature and at the same time husband the strength of the patient better than any other course of antipyretic treatment that could be imagined.

The fever of rheumatism and rheumatic gout should be treated with the salicylate of methyl, in the shape of oil of winter green, or the salicylate of soda, and possibly some one of the coal tar products when the pain is very severe. Purgatives and alkaline diuretic waters may be added with much benefit in most cases.

For pneumonia, as we generally see it, ice to the chest and head, with alcohol, digitalis, and liquor acetate of ammonia internally are the best antipyretics in the list.

The fever of grippe, accompanied with much pain is best treated with phenacetine, antipyrine, acetanilid, or Dover's powder, or a combination of these remedies.

Septicemia, sapremia and all febrile conditions following labor, are best treated with remedies not ordinarily mentioned by the text-books as antipyretics. They are the intra-uterine douche of simple sterile hot water, and sometimes the use of the curette, to remove offending material. Alcohol is a valuable adjunct to this treatment.

The fever of syphilis cannot be successfully treated with quinine or the coal tar products as has often been attempted, but readily yields to mercurials and iodides.

Again, men who treat the fever arising from abscesses, pus tubes, tumors, diseased appendices, tubercular glands, cariesed and necrosed bone, and foreign bodies, by any other means than the knife, or the removal in some way of the offending material, will usually find themselves getting very poor results, or a high death rate.

And last, but by no means least, the fever of pulmonary tuberculosis must be treated —ammonol, carbonate of guaiacol, creosote, and the various serums to be found in the market may reduce the temperature in some cases, but, to my mind, alcohol is entitled to more credit as a specific for the fever of tuberculosis than either of the rem-

edies above mentioned. We know it decreases oxidation, increases the action of the skin, and stimulates the appetite and digestion, which is more than can be truthfully claimed for any other remedy for this condition.

DISCUSSION.

Dr. W. P. Whittington.—The doctor has certainly given us a very excellent paper to-night, and has gone over the ground so thoroughly that there seems but little left to say except to comment on something which has already been said. I think the division is properly made as to the demands of reducing temperature and the classes of remedies used for reducing temperature.

Beginning at the beginning, we would notice salicylic acid in its different compounds, which is, in malaria, rheumatism and gout, as the doctor says, one of the best remedies. I will not consume your time by going into the various diseases,and which remedies should be used, but will only refer to a few things in reference to the reduction of temperature. There are a few things that we can always rely upon to reduce temperature, no matter what the cause is. We, of course, have fever, or elevation of temperature, in almost all diseases, especially of an inflammatory character. Among the remedies most commonly used for the reduction of this temperature, in whatever disease it may be found, there is nothing better than cold. It is my opinion that cold, either by the application of cold spring or well water or ice, or the ice packs or cold baths almost always reduce temperature. Just how cold reduces temperature I shall not undertake to explain, but it certainly does do it. We know that by actual experience, and that is sufficient for the present occasion. Among others that have almost always proven successful in my hands are acetanilid, antifebrin and phenacetin. With some of the newer preparations I have not had experience, and therefore cannot say that they are always reliable. I have had some cases of typhoid fever where it seemed that nothing would reduce temperature except application of cold, and I have had elevation of temperature in some other diseases which were obstinate. There is one other thing I did not call attention to, and that is veratum viride in the treatment of pneumonia. I believe where we have a hearty, stout, patient with catarrhal pnemonia, if we see him early and give him judiciously sufficient doses of veratrum viride we will absolutely always reduce the temperature of that patient. We will reduce the pulse and lower circulation, and if we carry it too far we will think we have produced death. I remember the first case I had. It was a very stout patient. I gave him veratrum viride in rapidly increasing doses. I was afraid he would die before I got the effect of the medicine. He was perfectly delirious, and was expectorating mouthfulls of bloody froth and I increased that veratrum viride so rapidly that I got a little too much for my comfort. The pulse went down from 140 to 80, the temperature sank to about normal, the breathing became much slower, the patient perspired freely and vomited wretchedly, and I began to think I had killed my patient. I gave him about 40 drops of laudanum, and in the course of half an hour the patient went to sleep and snored furiously. After two hours he turned on the other side and repeated the procedure. After four hours he woke up and said: "Is that you, doctor. When did you come?" He was perfectly intelligent, the pulse never went over 80 and the temperature over 100, and he made a rapid recovery. He had been sick about six days when I saw him.

Among the cold tar preparations I like phenacetin best. I use antifebrin, antipyrine, pheno-bromate and some other of the late preparations. I do not give those preparations in as large doses as some other physicians, and nearly always accompany them with quinine. In application for septicemia, if we can remove the cause I suppose the doctors contention would be correct that we are applying an antipyretic. If we remove the cause the patient will get well as a matter of course.

Dr. G. W. Purefoy.—There is only one thing I would like to say, and that is, that the profession is largely responsible for the popular prejudice against these antipyretics. It is often the case that it is almost impossible to get a patient to take these antipyretics, because the doctors have said it is dangerous. The profession is largely responsible for that. Of course the laity read a good deal about these things in the secular press. Just a short time ago I had a case of a lady from Richmond. I wanted to give her acetanilid. She asked me immediately if there was any cold tar preparations in it. I told her it was physic. She said her physician in Richmond told her it wouldn't do for her to take those things. I told her she might not be able to take it in Richmond, but she could take it here. I gave her that tablet, and she told me a few days afterwards that it relieved her very much—relieved her headache and nervousness, and she wanted me to give her the prescription. I told her I thought I had better not do that, and when she started to

Richmond she came and asked me to give her a box of those tablets. Later her daughter came here from Richmond, and she wanted the same tablets. Of course that feeling is largely imaginary, and the profession is largely responsible.

Dr. J. H. Williams.—One or two thoughts have been running through my head since I heard the latter part of the doctor's paper. I am sorry I did not hear the beginning. The thought that first occurs to me is, why do we want to use an antipyretic. Simply on account of high temperature? Simply for that alone? In my opinion no. We want to use antipyretics in high temperature precisely as we use the diptheria antitoxin in diptheria, to gain time. We know that hyperpyrexia in the body is produced by some matter in the body which we call toxin. The action of this toxin upon the system is such as to disturb the centres of the brain. The result is high temperature. This high temperature is, to some extent, I believe, a provision of nature. We know typhoid fever and most fevers of that kind are self-limited—that the germ in the body, or whatever it is in the body causing this disturbance—will in the course of time be eliminated by the tissues of the body itself. Now we wish to hold and conserve all the forces of the body until such time as these processes in the body can take place. Now let us look for the best antipretic in the case. With typhoid fever we use, naturally, cold. The cold bath, ice, preferably the cold bath, because we know that the application of cold water externally will reduce the temperature simply by extracting it from the body, not by its action upon the nerve centres, but simply ty taking it out of the body. At the same time it does other things. It puts the skin in better condition, and enables the funtions of the skin to carry on their natural processes. I am not at all opposed to using the cold tar products, of which acetanilid is the best. I do not care a snap about the heart. The question is, how far it is going to affect the nervous system. Cold tar products do not affect the heart except through the nervous centres. In cases like the one Dr. Whittington has referred to, I agree with him that veratrum viride is the antipyretic par excellence. It certainly reduces the temperature and pulse quicker than any of the cold tar preparations. I believe in lancing in severe cases of pneumonia. I believe that about covers the ground of thought I had in my mind in reference to the doctor's paper.

Dr. Jas. Sawyer.—The doctor gave us such a good paper he did not leave much to say. I agree with Dr. Whittington, especially about pneumonia, that veratrum viride is a very good thing, I have tried them with good results. I do not like phenacetin. I find it too depressing. I do not use it at all. I use acetanilid instead of salicylate of soda. Two to three grains of acetanilid gives me good results. I would like to protest against the use of quinine so much here. I do not think that quinine should be used in this climate except as a tonic. It is anti-malarial rather than an antipyretic. Quinine used indiscriminately is certainly a bad thing, and liable to cause trouble. In rheumatism I use salicylic and oil of wintergreen. But, as we have all said to-night, cold is the best thing, either ice, cold pack or cold bath, as the case indicates. Anything that will reduce the temperature is called an antipyretic, and we wish to first, of course, to remove the cause. If we cannot we have to temporize with it and let nature have its way and cure the cause.

Dr. C. Crawford.—I agree with Dr. Whittington in his veratrum viride treatment of pneumonia. I think it is one of the very best for pneumonia. I have also many years ago used blood letting. It is a success if you get to the patient in time. We hardly ever, however, get to the patient in the proper time to let. In the first stage blood letting is very good. I use as an antipyretic in fever acetanilid and aconite. I have had no trouble with them. I have never had any heart depressing effects such as have been talked about, from using the cold tar products. Ice is certainly excellent, and I recommend it. Dr. Baird has gone over the ground pretty thorougly and has written a good paper.

Dr. E. B. Glenn.—I agree with Dr. Williams in reference to the reduction of temperature by cold by lessening the heat units of the body, but I believe that it does it by reducing the nervous irritation, and consequently reducing the temperature. I think that all remedies to be used in reducing temperature depend entirely upon the patient. When I give the cold tar products I give them very judiciously. I think we should always reason what the condition is, and reason the physiological action of the drug, and thus get results carefully.

Dr. C. V. Reynolds.—I can heartily agree with what Dr. Baird says in regard to cold, but I cannot agree with his remarks in regard to cold tar products. If he uses it once or twice it is all right, but promiscuous use of cold tar products I think is dangerous, to say the least. I may feel a little sore on the subject of cold tar products because I have had some close calls.

In one case of typhoid fever I tried to keep the temperature down by ice packs and cold sponges, and when it reached 103 and climbing, I ordered five grains of antifebrin about once a day, which was given. On the third day the patient turned blue and went in a state of collapse and I thought he was going to die, but he managed after awhile to rally. I remember once giving a lady one tablet of acetanilid compound, and she turned blue. Not later than to-day I had an infant 18 months old with a temperature of 103, and I could not get it down by cold or ice. It was restless and would not allow it to stay on there. It had a temperature of 103 and had not had a cold bath for two hours. I gave it one grain of antikamnia, and in about two hours they came for me hurriedly. They finally found me and I went back, and that child was in a state of collapse. I gave it three grains of bismuth and one of antikamnia. It is all right now, but it went into that state of collapse, I believe in veratrum viride if you can watch it, or have a competent trained nurse, but I do think it is dangerous to prescribe it promiscuously. Unless you have some one who is absolutely competent and knows the action of the drug I think it is dangerous. I believe in blood letting by bleeding the patient in his own blood vessels by means of veratrum viride or some other drug, rather than with the knife. Let the white corpuscles battle with the bacteria.

Dr. M. H. Fletcher.—Dr. Baird brought out the strong points in his paper. The first one was that we should treat the disease, and that really is the secret of the whole thing. Unfortunately we have not a remedy for every disease, and we have to hunt around and treat symptoms. Where one patient might need an antipyretic with a certain temperature another would not need it, if it is a disease that pursues an even course. You often see a patient stand a temperature of 104 well, and it is not necessary to give an antipyretic. Another with a temperature of 102 will be delirious, and not from the poison, but from the fever itself. We should of course treat the disease, then if it comes to the matter of antipyretics, cold undoubtedly is the thing, cold externally, cold internally and cold eternally.

Dr. L. B. McBrayer.—I certainly enjoyed the doctor's paper very much. There is only one thing I want to add to his paper in the way of antipyretics, and that is that in tuberculosis it seems to me that rest takes the first place as an antipyretic, if we please to term it that way. It will reduce temperature more satisfactorily than anything we have outside of removing pus and the other materias morbi. A man with a temperature above 101, certainly above 102, has no business going around. I did not intend to say anything on cold tar products until some of the profession saw fit to give them a black eye. I am not like the majority of the lawyers we have, I don't profess any monopoly on wisdom, but I have used cold tar products and have used them quite a good deal, and I have yet to see any bad effects from them in reasonable doses. It is possible I may not have been able to see the bad effects; it is possible they may not have come in my cases, but it seems as though I ought to have seen them if they had been coming along in my cases. The only bad effects I have ever seen was when I gave too large doses. I did do that when I first began to use it. I found that five grains of phenacetin or antifebrin would produce a fall of temperature to normal, and that would be followed by chill and a rapid rise of temperature again to the former height. With a smaller dose I do not see those bad effects. Only one other thing. I am not going to express any opinion of my own as to the veratrum viride, but while Dr. Whittington was speaking I had several telepathic communications from the majority of the members of this Society, and the concensus of opinion seems to be that his case reached a crisis just at this time, and the result was a coincidence rather than a result of treatment.

Dr. H. L. Baird.—I wish to thank all the members of the Society for the very soft manner in which they handled me. Nobody jumped on anything I believe, except possibly my treatment of pneumonia. I suppose you will notice the fact that I recommended nothing in the treatment of pneumonia except simple remedies. I have used aconite and I have used all the cold tar products, and have come to the conclusion that none of them have any influence on the temperature. I believe that pneumonia is self-limited, and that no remedy except possibly blood letting in a robust person would have any effect, as I said in my paper about pneumonia as we generally find it. I believe there are cases in robust persons where we would be justified in giving aconite and blood letting, or any of the cold tar products. I believe in those cases where we get good results from the cold tar products we get it almost entirely from the influence of the product on the nervous system. They certainly quiet nervous irritability and thereby produce rest. We get our best results from quieting the patient, and not from the antipyretic effect. Dr. Reynolds reports a case

where he got collapse from five grains of acetanilide. I remember a case where the patient was taking two grains of acetanilide when the temperature reached 103. On a certain day the temperature reached 104. He was only taking one dose when the temperature reached 104. The nurse was instructed to give him a second dose if the temperature did not come down. She gave him a second dose that day, and in a few hours he was in a state of collapse, but by the use of stimulants and by my staying by his bed he came around. I do not believe there is anything further I care to say on the paper. I appreciate the remarks of the gentlemen, and hope they will all follow the line of treatment they say they believe in.

The Eruption of Typhoid Fever.*

By Dr. W. C. Brownson, Asheville, N. C.

No year passes in this Society without a discussion of typhoid fever in some of its aspects. Much has been said in regard to causation, treatment, etc., but very little concerning special symptoms. The eruption, when mentioned, has been dismissed in a few words as something rarely met with in this part of the country, but occasionally observed in patients hailing from malarious districts.

A diligent search through the medical literature within my reach as to the influence of malaria in causing the typhoid rash, has discovered nothing relating to the matter, and I do not believe there is any reason why the presence of the plasmodium of malaria in the blood should make its host especially prone to rose colored spots if he unfortunately develops typhoid.

Now a few words on the eruption, as to the time of its appearance, its character, its frequency and its diagnostic value. "On the seventh day from the beginning of the fever," sometimes a few days later, the eruption appears. The spots are of a pale rose color, from a point to a line and a half in diameter. A macular eruption according to some writers, in reality it is slightly elevated above the surface. The spots disappear on slight pressure as when the skin is made tense over them, re-appearing when the pressure is removed. Sometimes each spot is surmounted by a minute vesicle. The eruption appears in successive crops throughout the course of the disease, rarely after the middle of the third week. Each spot lasts from three to five days.

*Read before the Buncombe County Medical Society, May 15th, 1899.

I remember that Loomis in his lectures was accustomed to strongly emphasize the statement, "each spot lasts for *three days*." Most writers agree that it is sometimes plainly visible for a longer time.

The spots disappear gradually, leaving for a short time a slight brownish stain. The appearance of successive crops of these spots is diagnostic. The spots first appearing, if not succeeded by others, would be valueless for purposes of diagnosis according to recent authorities, though Loomis affirms that in mild cases there is frequently but one crop of the spots. The abdomen and the chest are the regions most frequently showing the eruption, occasionally it is general over the body. Typhoid spots are often found upon the back on a first examination, but they cannot be relied upon in this region, as a slight eruption is so frequently found on the back in patients sick from any cause.

The spots are often very few in number, one author says "from one to twenty-five or more." This fact should be well understood. If one looks to find an eruption that is very evident he will usually be disappointed. Flint says "the number is generally small. In the majority of cases not exceeding fifteen or twenty and sometimes not more than four or five can be discovered, occasionally they are abundant upon the trunk, sometimes extending to the extremities."

Where the spots are small in number, especially in dark-skinned subjects or in the negro, great care is necessary to discover them at all. This is without doubt the reason why estimates of the proportion of typhoid cases showing the eruption differ so widely, ranging all the way from thirty or forty to ninety per cent. According to Jenner—quoted by Loomis—it was present in one hundred and forty-eight (148) out of one hundred and fifty-two (152) cases. Murchison noted it in four thousand six hundred and six (4606) out of five thousand nine hundred and eighty.eight (5988) cases admitted into the London Fever Hospital in twenty-three (23) years.

In the Philadelphia Medical Journal of February last, a special report is given of experiences with Typhoid Fever among the soldiers of the late war in four hospitals of Philadelphia. In two reports no mention is made of the frequency of the eruption. At the Hospital of the University of Pennsylvania, the eruption was noted in 53.5 per cent. of the cases. In St. Agnes' Hospital in 89 per cent. The class of cases being the same there seems no special reason why the eruption should have been more constant in one hospital than in the other.

It has been said that the eruption is infrequent in children. This may be so. Typhoid fever is infrequent in young children.

Mild cases are perhaps less apt to show the eruption, though some of the most copious eruptions I have seen have been present in mild cases. The cases with which we meet in our practice are, as a rule, of a less severe type than are furnished by the lowlands, and it has always been a quite general opinion among the profession here that our autumnal mountain fever, which some do not yet believe to be typhoid, rarely presents an eruption.

For years I shared in the belief that rose spots in typhoid fever are not often found here. I am now convinced, however, that I did not formerly search for them with sufficient care. I had a mistaken idea that the spots should be numerous, that they should be evident at a glance. Since learning of my error, I have been more painstaking and have searched most carefully for the typical spots in all suspected cases of fever, and I now believe they are present in 50 per cent. or more of our typhoid patients here in the mountains.

THE DIAGNOSTIC VALUE OF THE ERUPTION.

According to the opinion of Loomis, one of the highest of authorities in his day, "two or three well defined spots are sufficient to establish the existence of the fever." He regarded the eruption as essential to a diagnosis, while he did not deny that cases occurred in which the eruption was absent. He said that he would feel as great a hesitation in diagnosing scarlet fever where no rash was present as in pronouncing a case to be typhoid fever where there were no rose spots.

Last year I asked several members of this Society how often they found the eruption in their typhoid patients. The answers varied surprisingly. One doctor said "once in fifteen or twenty cases;" another "forty per cent;" another "about once in a thousand," etc.

Now how can these widely varying statements be accounted for? The answer is simple. One observer believes that the eruption is typical, that it should be found in typhoid fever here as well as in other parts of the world, and that it is almost essential to the diagnosis, consequently he looks for it diligently and often finds it. Another has heard that typhoid fever in this part of the country rarely shows an eruption. He believes, perhaps, that when present it is apparent on the most superficial examination; that it is not characteristic, anyway; that it is not required to complete the diagnosis. Naturally, he does not often see it. Years ago I belonged to the latter class. I scarcely looked for it at all. Now I examine for it carefully at every visit until I find it or until the fever terminates. If all would do so I think there would soon be a greater uniformity of opinion as to its presence in our practice, and that the idea that malaria has any influence in the matter would soon disappear.

DISCUSSION.

Dr. M. C. Millender.—I did expect to say something before I came here, but the doctor has said everything I expected to say, and a good deal more. I concur with him entirely in what he says. I lay a good deal of store by the eruption of typhoid fever in making diagnosis. When I first began to practice medicine the diagnosis of typhoid fever was so easy that I did not attach much importance to a little thing like eruptions. Nose-bleed, diarrhœa, severe headache, intestinal hemorrhage, tympanitis, perforation, all those things were very easy, but the older I get the more difficult it is for me to diagnose typhoid fever, and at any rate I have gotten old enough to avail myself of this special means of clinching diagnosis. My experience is exactly parallel with Dr. Brownson's. The first ten years of my professional life I did not look for the eruption, in the first place, because I didn't expect to find it, but when I began to make mistakes I became more careful, and since I have always made a habit of searching diligently for the spots I have found them in perhaps 50 or 60 or 75 per cent. of the cases. This is not so in children. This is not so, perhaps, in the African race. You don't know what you have there. Sometimes you have a rose colored spot, and it may be some other specific trouble, but I attach a good deal of importance to it, and rely on it. I have seen the eruption on the abdomen, on the arms, on the hands, and on the face and chest. I saw a case of eruption not long ago about which I thought I was going to make a discovery. The patient had been sick several days, and I saw some rose colored spots on the abdomen on examination, and some on the chest, but more on the face than anywhere else. He had fever and headache, and I thought possibly I was going to have a case of typhoid fever, but the next day the rose colored spots had developed into vesicles, and after a little while they dried up and it turned out to be chicken pox.

I am very glad Dr. Brownson has brought this subject up, and I hope we will all make it a point hereafter to search a little more diligently for typhoid eruption, for I con-

sider it much more reliable than the various chemical tests that we have had brought to our notice.

Dr. Chas. Jordan.—I agree perfectly with one remark Dr. Brownson made with regard to the eruption, and how seldom one sees it, especially when they are not looking for it. Of all the typhoid fever treated by me, I very rarely expected to see the eruption, consequently did not look closely for it, and in that way I know I have missed a great many cases where the eruption was and I really didn't see it. But in Jacksonville the eruption was so pronounced, whether brought out by the malarial condition I cannot say, but one could not help but see it, and I think it must have been in at least 85 per cent. of the cases we treated that we noticed the eruption, and it was especially bright. With the doctor, I have seen it, in addition to the abdomen, on the chest and arms and back. I think it was in about 85 per cent. of the cases I took charge of I noticed the eruption.

Dr. Pearson.—I should like to ask the opinion of the Society in regard to the appearance of spots in mountainous regions. Dr. Jordan says he has noticed in 85 per cent. of the cases treated in Jacksonville a characteristic spot, and he has not noticed it in such a large per cent. here. Of course my experience has been very limited here in typhoid fever, for I have only been practicing a couple of summers, but I did have two or three cases last summer and looked diligently for the spots and did not find them, but they certainly had typhoid fever. My experience in the practice in Pennsylvania has been that we have a good deal of malaria, and the spots were present in almost all cases. Occasionally there would be a light case which would not have any rose colored spots. It is an interesting subject to me, and to all of us I am sure, and I would like to hear the opinion of some of the older practitioners here in regard to whether the spots have been present in their cases, and whether they have found them.

Dr. Jas. Sawyer.—Loder says quinine brings out a great deal of those spots. My experience has been a great deal like Dr. Pearson's. I have not had so many cases of typhoid, not more than 15 or 20, and have seen the eruption in but two or three cases, and I looked very hard for it. I think one reason is because we don't use as much quinine as they do in malarial regions.

Dr. Crawford.—I have some little experience in treating typhoid fever and malarial fever. There is a rash produced by quinine in malarial districts, and I have seen blotches as large as my hand, but only in a few cases. My experience has been exactly as the doctors. When I was a young man I did not make much examination, and I overlooked it, but after I grew older and had more experience and learned what typhoid fever was I always looked out for them, and my experience has been identically the same as these other doctors, and I think that has been the experience with a great many. There is very little quinine given in fever in many of the districts, but it is very true in malarial districts that I have seen pronounced rash from quinine. I had a case of malarial fever once that broke out all over the body. I met Dr. Hunter and stated it to him, and he said, "Quinine did that," and I said, "I have no authority for that," and we went to his office and he turned to some old authority and we found it. You may have pronounced rash all over the body with malarial fever which is rather white than rose colored. I have seen that rash which would come on the skin and in that skin would be a little watery substance, and in a few days it would all disappear. But as to this rose colored rash my experience has been the same as the others. I think a great many physicians have been a little derelict on that point, in not looking for those things.

Dr. McBrayer.—I do not know a great deal about it, but I am sorry to say I cannot give an experience directly in line with the experience of my learned predecessors, but I belong to that class spoken of in the doctor's paper as the "latter class," who do not examine very closely. I am rather the opposite of Dr. Millender. When I began the practice of medicine a few years ago I could not make a diagnosis of typhoid very easily, and I always looked very carefully for the rose spots to clinch my diagnosis, and I will say that I found them much more frequently than I do in this day, but since I have grown older and more astute and scientific I have learned to make the diagnosis of typhoid fever very much more easily, and I do not find it necessary to examine so closely for the spots, and as I remarked, I belong to this "latter class" of Dr. Brownson's, and I do not see them so often as some others present do.

Dr. F. T. Meriwether.—I do not know that I have anything particular to say about the paper. I perfectly agree with Dr. Brownson. I think you find the spots in a large per cent. of cases, and that if one looks for these spots he will find them in almost every case.

Dr. C. V. Reynolds.—There is one point which has not been brought out in considering the eruption in typhoid fever. I find in the Twentieth Century Practic of Medicine that some practitioner claims that

typhoid bacillus can be found always in this rose colored eruption, if sought for. He also spoke of an abscess following typhoid fever and claimed that he had patients who had as many as sixty to eighty abscesses following eruption all over the body. I thought that was rather remarkable. I had never seen it. Those two points he brought out in the discussion of the eruption of typhoid fever.

Dr. W. P. Whittington.—I think that the opinions of typhoid fever are legion. I never saw two men in my life that thought the same thing through and through, and very few who think the same thing about eruption. If I had to rely on eruption of typhoid fever to make my diagnosis of typhoid fever I would make very few, and I examine my patients very nearly as closely as any physician, but in later years I am like Dr. McBrayer, I do not rely on the eruption for diagnosis, and probably do not find it as often as I did, but I certainly do not find it in fifty per cent. of my patients by any means.

Dr. H. L. Baird.—I do not know that I have anything to say, more than I have not exactly the same experience Dr. Brownson has had in finding the eruption in fifty or sixty or seventy per cent., but I do think I have found it in twenty or twenty-five per cent. of the white cases and probably a little more than that. I do believe there is something in the eruption. I think what we term the typical cases are most likely to produce eruption. In those very mild cases I have not seen it, but there are cases of typhoid fever unquestionably, in which I do not doubt persons have eruption.

Dr. W. C. Brownson.—I have nothing else especially to say, except on the point brought up by Dr. Reynolds. I remember reading in some journal that the bacillus of typhoid was found in the typhoid spot, but I presume it was never thought to be uniformly present. I know a short time after that I read in Sternberg's work that the bacillus is very rarely found in the blood, and if that is the case it seems to me it must be very rarely found in the spot.

Diagnosis of Bullet Wounds of the Intestines.‡

By Hugh M. Taylor, M. D., Professor of Practice of Surgery, University College of Medicine; Surgeon of Virginia Hospital, etc., Richmond, Va.

A discussion of the whole question of bullet wounds of the abdomen would take us far beyond the limit set to this paper. I shall, therefore, confine my remarks to some points in the diagnosis of bullet wounds of the intestines.

The whole subject of such wounds is largely centered in the diagnosis. If we know we have an intestinal perforation to deal with, then there remains no question as to the needs of the case. Prompt operative intervention alone can save the patient. The conclusion expressed by Dr. Otis, that he doubted if there is even "one incontestable instance of recovery from wounds of the small intestines" is as true to-day as when enunciated twenty years ago. We admit freely that it is possible to have penetrating bullet wounds of the abdomen without visceral lesion, but we think few students of this subject will now concede the possibility of spontaneous recovery from bullet perforations of the intestines and we emphatically agree with a majority who think such a contingency is too remote to enter into our calculations in making a prognosis. In this, as in so many fields of surgery, the idea is impressed that we are more in need of diagnostic means than of an improved operative technique.

In emphasizing the importance of a correct diagnosis, I should have impressed the fact that it is essential to make a correct early diagnosis. The late manifesttaions are easy to interpret; with the advent of that usual trinity, tympanites, vomiting, and peritonitis, the furies of intra peritoneal infection, then the diagnosis is no longer obscure. Will a correct interpretation of the early symptoms, as a rule, enable us to differentiate between the penetrating wound with and one without a visceral lesion? We think that a large majority of surgeons agree that early classical symptoms are not, as a rule, presented and we are forced in a majority of cases to decide either to do a confirmatory celiotomy or else wait for symptoms, which means that if there is a hollow visceral wound to wait until the case has passed from the safe operable stage to one almost hopeless as to results. But we should not accept this forlorn conclusion as holding for all time. We should constantly ask are there any early differential symptoms, which are commonly present in intestinal lesions and absent when there exist no visceral wounds?

Abolished Peristalsis.—If my confidence in this symptom of perforation were based only upon my own limited observations I should not be so emphatic, but my appreciation of it is doubly enhanced by the fact that abler clinicians than I can ever hope to be have impressed its value. I recall the emphasis placed upon this symp-

‡Read before the International Association of Railway Surgeons.

tom by our distinguished Ex-President, Dr. Murphy *"If," he says, "the patient has perforation of the bowel he has obliteration of peristalsis, which is one of the most positive signs of intestinal perforation."

Many other students of this subject appreciate the significance of this symptom. In an abolished peristalsis and movement of gas within the intestines we think we have a guide of more value than any which we are cognizant of, and especially is this true as it is immediately appreciable.

In five cases of intestinal perforation seen within the past few months this symptom has been carefully studied by myself and colleagues, and in not a single instance did it mislead us. Two of the cases were bullet wounds of the gastro-intestinal tract, two were typhoid perforations and one was a perforating ulcer of the duodenum. Time and again these cases were examined with the ear and phonendoscope applied to different parts of the abdomen and in no instance was a movement of gas within the intestines appreciable. All but one of the cases were seen and examined in a few hours after the occurrence of the perforations, and certainly prior to the advent of septic peritonitis and its sequence—intestinal paresis. If we are correct in inferring that an abolished peristalsis is uniformly present in intestinal lesions and is manifested at an early stage, then it is perhaps, the only early symptom upon which we can confidently rely. May an abolished peristalsis coexist as an early complication with other lesisons than intestinal perforation? It is claimed that exceptionally a wound or contusion of the abdominal wall may temporarily inhibit peristalsis, or that an intra peritoneal trauma, sine perforation may accomplish the same end. Such a contingency must, we think, be so rare that we are unwilling until further pursuaded to abandon our faith in what seems the most reliable early evidence appreciable.

Muscular Rigidity.—Second only in importance to abolished peristalsis is, we think, the occurrence of muscular rigidity. We appreciate the fact that so many intra-peritoneal inflammations, notably of the appendix, will induce muscular rigidity. Even a trifling trauma to the abdominal wall of a neurotic patient may be equally effective in rendering the abdomen rigid On the other hand, we have exceptionally seen the abdomen flaccid during the existence of profound shock from acute toxæmia incident to a gangrenous appendix, or an acute septic peritonitis from any cause, but my experience leads me uniformly to expect appreciable muscular rigidity as a sequence of a sudden extravasation into the peritoneal sac. Within the past ten days, two noticeable instances have occurred in my practice. A young woman whom I thought was convalescent from an acute attack of appendicitis at 8 P. M. had no pain nor rigidity, at 9.30 she had agonizing abdominal pain and a rigid abdomen, due to a slight rupture and leakage from an appendicial abscess into the peritoneal sac. A case of typical typhoid fever, had an action at 10 A. M., and was immediately taken with acute abdominal pain and vomited once. Marked abdominal rigidity and abolished peristalsis, with the history given, warranted an immediate section, and this disclosed two perforations near the ileo-cæcal junction, and fluid fecal matter in the peritoneal cavity.

In a case of duodenal perforation, seen a few hours after rupture, the extremely rigid abdomen alone, seemed to warrant a diagnosis of some serious intra-abdominal lesion. My experience may be unique, but I cannot recall an instance in which a sudden invasion of the peritoneal sac was not followed by the early manifestation of muscular rigidity. I hope I am not wrong in the value placed upon this symptom, as we are sadly in need of early diagnostic guides. Few will, we think, deny the fact that many more mistakes are made in the diagnosis of bullet wounds of the bowels, than in the treatment, and that mistakes in treatment are largely due to our inability to made a correct early diagnosis.

Shock.—It is common experience that the occurrence of absence of shock is no evidence of the existence or non-existence of an intestinal perforation. Shock may be purely psychical. Greig Smith notes the fact that shock may be so purely psychical that a wounded soldier profoundly shocked, on being assured that he is but slightly hurt, may react at once. But he also reminds us that "reassurance will not charm away the abdominal shock incident to extravasation into the peritoneal cavity. A simple contusion of the abdominal wall it is well known may be attended by profound shock, while a multiple visceral wound may exist with no appreciable shock. While the presence or absence of shock is in no way significant, we think the *behaviour of shock* in many instances is a guide of signal importance.

In non-penetrating and in penetrating wounds of the abdomen without visceral lesions, if shock occurs at all, it should be instantly manifested, reach it acme at once and pass away in the usual time under ap-

*Trans. American Association of Obstetricians and Gynecologists.

propriate treatment. On the other hand, prolonged shock points to visceral lesion and the prolongation of shock is due to hemorrhage or extravasatien of hollow visceral contents into the peritoneal cavity. Shock followed by reaction and recurring shock points to visceral lesion—in this case the shock of trauma is recovered from and the recurring shock is due to hemorrhoge or extravasation. Shock appearing some hours afters a penetrating wound, and which is progressive in character, points to intra-abdominal hemorrhage or extravasation, while shock which is not manifested for ten or twelve hours will probably indicate the advent of septic peritonitis and the shock of sepsis.

A case of multiple pistol perforation of the intestine, recently seen, illustrates the minor part played by shock as a symptom of visceral lesion. The wound of entrance was above and to the left of the umbilicus. Wounds above the umbilicus are known to be less frequently complicated by visceral lesions. In two cases of bullet wounds recently seen, in both of which the wound of entrance was above the umbilicus, intestinal perforation occurred. In the last case nine perforations of the messentery and nine of the small bowels were disclosed by a celiotomy. This patient was not referred to me until 25 hours after he was wounded, and general peritonitis was active when I operated. The abdomen was even then still flat, but rigid. The pulse was only 100 and was strong. The temperature was but little elevated. There was no hepatic resonance, no vomiting, no pain, no anxious expression, in fact there were no appreciable evidences of intestinal perforation except a rigid abdomen and an abolished peristalsis, and in this case the abolished peristalsis might have been due to septic paresis. There was no escape of gas from the peritoneal sac when it was incised, but there was a free discharge of intestinal contents mixed with sero-purulent fluid, and in spite of the multiple intestinal perforations, the intestines were not collapsed. This case is further interesting from the fact that death did not occur from leaking of the sutured perforations. The patient lived a week or more, and died from acute infection and sloughing of the abdominal incision. The intestines in contact with the slough became infected, but not before adhesion of the intestines around the incision had shut off the general peritoneal cavity. On making a post mortem all of the perforations were found closed and the peritoneal cavity dry. In the after treatment of this case we were impressed with the value of croton oil by the mouth in securing a movement of the distended bowels. This was effective after salines and high enematas, etc., had repeatedly failed. Again, the comfort incident to syphoning and irrigating the stomach to control the gulping vomiting of sepsis, was strikingly illustrated, and it seemed equally true that the persistent subcutaneous infusion of saline repeatedly rallied the patient's strength. Anti-streptococcus serum (Parke, Davis & Co.) was also used, and as far as we could tell with no appreciable benefit.

If time permitted we could, perhaps with profit, consider other symptoms which are credited by some and denied by others, with being guides in differentiating between a penetrating wound with and one without visceral lesion. The pain, the pulse, the temperature, vomiting, breathing, emphysema of the wound tract, hepatic resonance, abdominal distension and dullness,are symptoms which have all been studied with the effect, we think, of demonstrating the fact that they are certainly very unreliable early guides. The diagnostic value of intestinal inflation under pressure is, in the opinion of the majority of surgeons, an open question. I have not used it.

The question may be asked, with the view of testing my confidence in the symptoms I have impressed, if I would, in their absence, be willing to adopt an expectant treatment. I must confess that I would not. In a penetrating wound of the abdomen, nothing short of an exploratory incision can make the non-existence of intestinal perforation absolutely sure. It is not the operation that I fear, but rather the danger of waiting for symptoms, not the celiotomy per se, but the want of early operative intervention. This much I can say, if I ascertain the existence of abolished peristalsis, muscular rigidity, prolonged or recurring shock, I can then advocate and practice exploratory celiotomy with very much less hesitation.

6 N. 5th Street.

A Study of the Symptoms of Rabies or Hydrophobia.*

By Follen Cabet, New York.

Why are there so many false ideas in regard to hydrophobia? This question is difficult to answer in a satisfactory manner, but I believe from my experience with the disease in people and animals during the past two years that the principal cause of many false ideas are, 1st, That the disease is rare in human beings in this country and as a result small opportunity is afforded for a

*From the Research Laboratory, New York City Health Department.

thorough study of its various clinical symptoms. 2nd. The general practitioner of medicine, owing to the infrequency of the disease in human beings, does not study the literature of the subject. Thus he is in no position to give facts in regard to the disease, and as a result of this ignorance expresses views which have no basis whatever in fact. In this manner old superstitions are handed down from one generation to another and become firmly rooted in the minds of people in general. As rabies is a disease which is much feared and is common enough to be heard of every once in a while, these superstitions and unscientific views do much harm, cause needless suffering and occassionally death. In Europe the ideas about rabies as held by the body of the medical profession are much more accurate, much clearer and the disease in consequence is much better understood and measures for its prevention are on scientific lines. In the first place hydrophobia as a name for the disease is a misnomer, as there is no fear of water in man or animal during any stage of the illness. Fluids and solids by mechanical action produce painful spasms of the muscles of the throat and as these spasms are frequently agonizing, both fluids and solids are refused by those suffering from the disease for natural reasons. If the person supposed to be suffering from rabies shows fear of water, and not other fluids we have good ground for suspecting it to be a case simulating rabies. From the above it will be seen that hydrophobia is an absurd name and we should use only the name rabies when speaking of this fatal malady.

Persons suffering with rabies do not bark or bite at any stage of the disease; the mind is clear and although there may be in some cases a light transitory delirium the patient can always be roused and reasoned with and the mind remains clear to the end. Persons suffering from true rabies do not have to be held or tied down. They will cry continually for relief from their terrible suffering and will have to be supported in various positions in attempts to ease their pain. The disease does not develop before 3 weeks from the time of the bite and may not for seven months. No authentic case has been reported with an incubation period of more than seven months. The stories we hear of incubation periods lasting for years are not based on facts. In order to prove that a case is one of rabies we must show when possible that the injury has been inflicted by a rabid animal, within the time limit described above and must have the following general symptoms: 1st, beginning nervousness, with pain as a rule over seat of injury. 2nd, pain and difficulty in swallowing fluids and solids. 3rd, extreme apprehension, and spasms of muscles produced by even a breath of air. 4th, heart irregular and weak. 5th, spasms of muscles of throat and body in general. All these symptoms become aggravated, swallowing becomes impossible, spasms become general accompanied by fearful agony, mind clear, some increase in salivation, paralysis in part bitten if bite was on extremity and after 3-7 days death from exhaustion. No one ever recovers from true rabies.

Rabies is undoubtedly a disease of the nervous system, which, beginning by the local deposit of a specific microorganism yet unknown and probably fermentive in character, lies localized at the point of entrance for at least twenty-four hours and then by means of the nervous system produces a disease of the whole nervous system, the pathology of which is also yet unknown. The disease is invariably fatal and all we can hope to do after it developes is to quiet pain and give general treatment. Immediately after the injury much can be done. Within twenty-four hours and sooner if possible the wounds, after allowing free bleeding, should be thoroughly cauterized with pure nitric acid; if the wounds are large we should use the cautery while the patient is under an anæsthetic. That the virus is not taken directly into the system by the blood has been shown by Pasteur and corrorborated by me with experiments on three hundred guinea pigs and rabbits in which also the value of different cauteries were tested (Medical News, March 18, 1899).

Cauterization, contrary to general practice, should be our strongest card even if not used for twenty-hours. If nitric acid cannot be obtained we should freely use the red hot iron.

The Pasteur preventive treatment is of the greatest value, after cauterization, and should be used in cases where there is any question as to the disease being rabies in the offending animal. This treatment in cases of very superficial wounds which have been thoroughly cauterized within twenty-four hours will not be necessary, but in other cases it should be used as early as possible. If the bite is on an exposed part of the body it is of still more importance. The treatment should be begun as soon as available after the injury but may be effectual if used within 2-3 weeks. We must be on the lookout for cases simulating rabies and cases of hystero-epilepsy produced by fear. These cases may be misleading and are met with frequently.

By applying the tests and rules described in this paper a correct diagnosis can usually

he made. The only way, however, to absolutely prove a doubtful case to have died from rabies is by taking a portion of the medulla of the victim and inoculating guinea pigs subdurally. This test is also the only one to prove beyond doubt that an animal has died from rabies. These tests take from 7-15 days, guinea pigs showing the disease much sooner than rabbits. Until the microorganism of rabies has been discovered and some pathological lesions are shown to be invariably present these inoculation tests will be the only sure means of demonstrating the presence or absence of rabies and should whenever possible be made.

Smallpox in Eastern Virginia.‡

By Frank H. Hancock, M. D., Richmond, Va.

The relation that succeeding historical epochs have borne to one another; the similitudes that have occurred in all pages of life's history; the cyclical courses that all governments seem to have run; the evidences of change in every natural thing have all, long ago, been expressed and explained as processes of evolution, proceses to which nothing material nor immaterial has proven inoperable. And so smallpox, manœuvred, it may be, by the same subtle influence has been in course of change, and it can be no longer said, as was true of previous outbreaks, that smallpox is but a long repetition, that one epidemic is but a plagiarism of another. The smallpox in Eastern Virginia was not of orthodox form. With initial symptoms somewhat distinctive, its after developments were attenuated and perverted in almost every single instance. Its very existence seemed, in fact; an 'hideous abortion' with oftentimes as much approach to conventional smallpox as an initial chancre approaches in appearances the after manifestations of syphilis. So striking were these anomalies that at times one felt forced to believe that what he was treating and isolating was some species of monstrosity, a nondescript; as nameless among diseases. perhaps, as the relation was innominate that a King of the Jews sustained to the animal kingdom during a cruizing expedition when he grazed for seven years, and is said to have appeared as a biped-quadruped. Such a position upon the part of a man was scarcely less curious than was this hybrid manifestation of smallpox. Nor had we the advantage of that stage of literature, when to have divulged that to some mystic meaning, might be attributed this monstrosity of form would have explained the unusual to a querulous public.

The people of Eastern Virginia were shocked by announcements from local health boards that smallpox had developed, and then that this disease, prehistoric in its distressing effects, was under way. Alarm spread rapidly. Enhanced by the reports of cultured imaginations, and the recitations of those whose experiences were cipher-traced upon their faces, consternation was diffused over the country—a country which for its remarkable amount of excitement might nave been imagined a creation of touchwood, a world of smokestorm, where rumors, wind-driven, were continually flying. Probably it was some of these that reached the ears of the State Board of Health, for at one time it marvelled that the whole State was not infected, inasmuch as sufficient embargoes had not been placed upon the public traveling to and from these infected districts.

It is a pleasure to remark that though the methods here suggested were not employed, the State suffered but little from smallpox in Eastern Virginia.

Again, it declared, saturnian-like, that there were one thousand cases of smallpox in Eastern Virginia. It is said that imagination is a licensed trespasser. We will not complain of the State Board of Health. We would not accuse it of travesty. But there were not at any one time one thousand cases of smallpox in Eastern Virginia. The scientific interest that attaches to this epidemic is its atypical conduct. It seemed rather a contagion of anomalies than an epidemic of smallpox, and medical men were not always ready to assimilate its whilom movements.

PERIOD OF INCUBATION.

This was usually from fourteen to twenty days. It was at first a custom in Norfolk County to release suspects after two weeks quarantine. Experience quickly taught us better. About the first of December a white woman was thought to be suffering with mild smallpox. A week before she had had a chill, followed 3 or 4 days later by three or four papules on each wrist. two on the face, one on the shoulder, and another on the knee. Vesiculation and maturation were feebly defined, the eruption being abortive. Two families that had moved out were secured and returned, with difficulty, and the house quarantined. After fourteen days of exposure the place was disinfected, and the three men, supports of indigent families, were allowed to return to their work. On the sixteenth day the husband of the

‡Read before Alumni Association of University College of Medicine, Richmond, Va., May 11, 1899.

smallpox patient was taken with a severe headache, and in thirty-six hours his face was sheeted in a rose rash, other sections of the body becoming quickly involved. Characteristic papules developed, and he had a typical case of smallpox. Later a child in one of the families exhibited a varioloid, and was returned to its original place of quarantine. The third family developed smallpox, it is understood, in North Carolina, where they had gone on a visit. A colored farm hand having been exposed to smallpox was isolated. On the twentieth day he presented symptoms of smallpox and was sent to the pest house. As the epidemic proceeded, we found that it was unusual for cases to develop under fourteen days, that in the majority the stage of invasion began about the sixteenth or seventeenth day, a fact first taken cognizance by Dr. L. C. Shepard, of Norfolk, Virginia.

INITIAL SYMPTOMS.

As is usual with smallpox the cases in this outbreak started with a chill, headache, backache, and such phenomena. The fever was usually from one hundred to one hundred and two, and would last with the headache or backache until the eruption came out, which was in good form, as genuine smallpox is said always to do that way. The introductory suffering, at times very keen, was in inverse proportion, or no proportion at all, to the later stages. Headache so severe as to suggest meningitis would be followed by a feeble crop of short lived bumps. Sunday, April 23rd, '99, a colored woman experienced a most rending headache. Hoping to relieve the acuteness of her suffering she blistered her forehead from the extremity of one brow to the other. Saturday, April 29th, '99, she was visited. There were the remains of four papules upon her face. The scabs, or their counterparts, had fallen off leaving a slightly red, dried elevation. Upon one thigh was a dark round place, evidently a recent eruption, but did not have sufficient vitality to become a papule and smouldered where it lay. Aggravated initial symptoms followed by an eruption that in five days had run its course and subsided.

Ebin Quinn, colored foreman of a railroad gang, felt indisposed February 24th, '99; felt as though he had a cold, some fullness about the head, stiffness of the joints, no localized pain, very little inconvenience of any kind. On the fourth day the eruption came, and he was thirty days recovering from a vicious case of variola. Initial symptoms were indicative of nothing.

STAGE ERUPTION.

The eruption as seen in this epidemic was typical as to the time of its appearance, coming about the third or fourth day. There seemed no relation between its early appearance and a severe case of smallpox, a fact announced by Sydenham. The eruption began in papules and sometimes ran typical courses. In an immense number of cases the type was abortive, and the stages could not be differentiated. Usually the epidermis alone was affected, the papillary layer being rarely involved. Pitting, therefore, was unusal.

What must have been very impressive to observers of this epidemic was the superficial look, the surface involvement, of these eruptions, particularly in the white cases. They looked as though they had been dabbed on the skin, and held by adhesion. Frequently there were no indurated bases. They were not profound. Their frailty could be easily demonstrated by inserting a needle. The muco-purulent secretion would exude, and the thin walled capsule at once collapse, leaving a place that palpation could scarcely detect.

Compare this with the multilocular cell arrangement of the ordinary pock pustule, where the most industrial attempts will not entirely discharge its contents, or bring about a collapse, and the difference in this and other epidemics will be appreciated. A good deal of trouble was experienced in dealing with a variety of pock eruption, which has been called hornpox, or wartpox. It developed as the other forms, but subsided indefinitely. After the pustules dried this horny, mumified substance remained. It had the shape of the originial eruption, was honeycombed, and looked much like the usual scab. Upon close examination it would be found to be hard and utterly immovable. After a month or two, sometimes three months, it would disappear, and in its place would come a pit, which resembled the pit of syphilis. It is highly probably that some cases discharged from pest houses, and picked up upon the streets by other health officers and declared to be infectuous, belonged to this class. Exposed mucous membranes, such as the mouth, and pharnx, were frequently affected, the eruption corresponding to that on the outside. Not possessing the fibrous compactness, the density of texture of the skin, these parts were easily disturbed by an invasion, and any considerable amount of eruption was attended by a spontaneity of swelling and infiltration that was at once alarming and dangerous.

A patient with discreet smallpox was handed a glass of milk. Efforts to swallow

were abortive, the milk returning through both nostrils. The milk, though directed backward with the usual force of the tongue could not reach the œsophagus. The sagging walls of the posterior pharynx encroached upon the anterior surfaces, and the elevators of the pharynx were unable to either lift or dilate its infiltrated attachments, that the pharynx might receive its food. The elevator palati muscles could not elevate the soft palate with its appended mass, the uvula, to protect the nasal apertures. The milk, therefore, pressed backward by the tongue and constrictors of the fauces went the way of least resistance—the posterior nares.

DIAGNOSIS.

During an epidemic an initial chill, with hadache, backache, and some fever, followed in from thirty-six to forty-eight hours by an eruption are always suggestive of smallpox. How easily, it would seem, smallpox is diagnosed, a disease so accurately punctuated, so symmetrically staged. Hardly in the discription of classical diseases have text books enjoyed such an opportunity of editing symptoms, and they have pursued it with an emphasis that is magisterial, a knowledge that is incorruptible. With but a meagre recognition of its variations, authorities have classed, and specialized, defined and costumed, fixed and elaborated, its periods until the disease is given but one general expression, and that fixed by destiny. Consultations over suspicious cases will demonstrate the influence of these perniciously taught dogmas. What is said during such conferences being but repetitions of what has been written, as the speaker remembers it. The disease must be as it is written of by Sydenham, by Osler, by others; the majority cases must be of a violent infectious nature; the examiner must see faithful reproductions of European editions of smallpox, or the cases before you of those are impetigo, and the epidemic one of that contagion.

Given a typical case of smallpox, a case where the eruption comes out clear and strong, papules that are shoty, vesicles that are umbilicated, odorous pustules with concomitant fever, and we have a text book reproduction, a state of affairs that health officers in previous epidemics will understand, and will agree with you is smallpox. But where ninety per cent. of the cases are very much unlike this, where the very mildest imaginable cases occur absolutely independent of any previous vaccination; where the people rarely stop work during the stage of eruption, where the biggest mortality yet recorded is between two and three deaths in every one hundred cases; then you have conditions that text books have not described, and that their circumscribed devotees cannot recognize. Mrs. C. was reported by her neighbors as having smallpox. She was visited by a health representative, and gave the following history: Sometime before she had had a very severe headache, and aching through the body; had some fever, and anorexia. The third day the eruption began to appear upon her face, neck and body. When seen, about the seventh day of eruption, the pustules were widely scattered, were 3 m.m. deep, and about the size and shape of a capsule cut off. There was no induration of the bases, no redness of the skin between these pocks. The secretion would exude upon the insertion of a needle, and the pock collapse as freely a pneumatic tire. The disease was pronounced smallpox. The family physician was called in. After a most careful examination he decided it was chickenpox. It was expected that a diagnosis of impetigo would be made as it resembled that disease sufficiently to befoggle a callous observation, but it is supposed that the alternative, varicella, was in accord with the dissonant note the physician was determined to sound, and that the symptoms of this favorite disease were passed over in the excitement of a differential diagnosis, where the delicious possibility of confounding those who were already committed to a diagnosis of variola seemed so apparent. Those most interested being compelled to admire the strength of this intellectuality brought to bear, savoring so much of titaniun. Two other physicians were called and they demurred to the diagnosis of variola. A fourth man was invited to see the case. He agreed with the health representative and advised a quarantine. The husband was stopped from work, and a moral quarantine ordered. Soon the husband was taken sick and went through with the disease, as did all of her children. The people under the misdirected influences of their family physician did not regard the quarantine, and allowed their neighbors and friends to visit them. The result of it being that more than twenty cases developed, comprising five other families, people that should have been protected, that were not able to meet the losses thus involved, to be sacrificed by the technicalties of circumscised judgment. Many medical men of the section where smallpox has raged, and still exists, declare that, while there have been some cases of variola, the majority of the eruptions were of those of impetigo contagiosa. They base their conclusions upon comparisons, upon what they have

seen, and what they have read. Many cases supposed to have had smallpox have been vaccinated, successfully, so it is said. In one instance a patient was vaccinated during the pustular stage of smallpox. A sore resulted, which was photographed. Besides the vastly increased irritability of the skin at this stage it is almost an impossibility to denude an area in the neighborhood of pustules, without introducing some contamination, and it was suggested that the sore was one of pus infection, but the physician could not concede such a point, could not so easily let go his proof conclusive, and incorrigible, he is still using this merciless argument, still proclaiming the vaccination that "took" during the pustular stage of smallpox, the simultaneous appearance of variola and vaccinia. There is one fact in connection with all this that these physicians, adroit and cultured as they may be, have not been able to explain. Why is it that these people bearing impetigo upon their surfaces, do not contract variola when exposed to it.

A negro developing an acute case of bumps was not held to investigate variola, or varicella, or impetigo, but he was sent, and sent at once, to the pest house. There he ate, slept, and drank, in warm crowded rooms for weeks, where patients, piled in tiers, presented smallpox in every conceivable stage. And yet it is an official fact that of the twelve hundred cases sent to the Norfolk County Pest House, in but one did the bumps dry up, and a variolous eruption supervene. He was seen twenty-four hours after his admission to the hospital by Dr. W. Keeling Wood, physician in charge, who at once recognized that a mistake had been made, and had the patient removed to the House of Detention. But the disease, which finds its peculiarity in attacking this race, had infected him, and after the usual incubation he developed smallpox. Had observation been strictly devoted to single cases, in this epidemic, the cases not judged according to maxims, it is probable that medical men would not have been in such diametrical opposition, that the partisans of impetigo and varicella would not have been so far in the distance in appreciating this entirely new stratum that has been laid in the history of smallpox.

VARICELLA AND VARIOLA.

The close approximation of the stages of invasion and eruption, the one following the other from twenty-four to thirty-six hours, is an almost infallibly distinctive point of varicella. The eruption of the milder disease would develop and pass away almost as rapidly as urticaria. The abortive form of variola, seen so often, where the stages were illy defined, presented a somewhat similar tendency, but never changed with the precision of varicella. The bright red splotch of varicella, as seen in the whites, quickly surmounted by a vesicle, was in sharp distinction to the sombre-hued papule of variola. The eruption in varicella is in spots, soft and bright, that of variola in papules, hard and shotty.

The points of similarity of other diseases will be left to those whose interests have been served in establishing them at every opportunity, whose talents have been spent in that direction. We will leave the discussion with what has been said of the smallpox of to-day.

As to the Instructions Which Should be Given a Tuberculous Patient.

By C. P. Ambler, Asheville, N. C., Formerly Associate Medical Director Winyah Sanitarium.

It is not the purpose of this paper to enter into a discussion of what climatic resort should be advised for any individual or class of cases, but rather to take up the matter of what to tell the patient regarding his condition.

Those of us who practice among the tuberculous at our resorts are always struck with the seeming ignorance of the patient regarding his own condition. He comes to us with "weak lungs," "bronchitis," "throat trouble," "abscess of the lung," "chronic pneumonia," "pleurisy," "catarrh of the throat," etc., often realizing that these names, in other patients, are mere cloaks to hide some more serious condition, he fails to apply his reasoning to himself, and goes blindly on in the belief that he has "catarrh of the bronchi which has not yet reached the lungs." Many of these patients have been told little or nothing of the truth, and from what little has been told them, have, in a manner, made their own diagnosis. Cases probably occur where such a diagnosis may have been made by ignorance or carelessness on the part of the physicians, but I believe that in these days of thorough examination such cases are the great exceptions. I would give our physicians credit for all intelligence due them, but I do believe that they are as a rule cowards when it comes to telling a tuberculous patient the truth. It is a hard thing to do to inform a father, a mother, a husband or a wife that the loved one is dangerously ill, and it is still harder to tell the patient himself. In rare cases I admit it would be best not to tell the patient the entire truth;

such cases are rare, however, and far better to tell him all than to allow him to go off, perhaps alone, upon a journey of 500 or 1000 miles, when his condition is such as to preclude any possibility of his getting any better, the poor fellow believing all the while that he "is threatened with lung trouble." I do not believe I have ever seen a patient who expressed himself as "threatened with lung trouble," but what upon examination he was found to be well advanced in the same. I take it that if the cases are met reasonably early, their greatest safety lies in their knowing the truth. If the disease is a tuberculous one, tell him so; tell him the truth; absolutely the truth as near as can be determined. Explain to him what a tuberculus disease is; how contracted; how recovered from; explain to him how the great majority of people who become infected with tuberculosis, recover from the same without knowing that they have ever had it. Explain to him why it is that so many die of this disease; show him wherein he is a source of danger to others and also unto himself; explain to him how over exertion is the cause of so many deaths, the cause of so many relapses and the cause of so much suffering; explain to him how it is that here is an organ which requires rest and quiet, if repair is to be expected, just as much as would a broken bone or an open wound; explain to him why it is that hemorrhages occur; let him understand that all secretion from the lung in such cases must be destroyed; and above all tell him that no matter what he is doing, walking, riding, working or playing he is always to stop before he gets tired; his walking must be so arranged that he is back at home before he feels tired; tell him the why of it; let him understand that exhaustion means further congestion of the diseased area, that congestion when continued or repeated means further inflammatory trouble, extension of the disease, and it retards and prevents nutrition and repair of the part. If he is an intelligent person explain to him about his temperature record; have him get a thermometer of his own, instruct him how to use it; instruct him as to the significance of fever. If he will carefully follow his temperature record he has in his own hands always a sure index as to what is going on; farther, in his thermometer he has a governor as to his actions, his diet, the time of day for his heaviest meals, as to stimulants, as to time for rest and exercise; show him that he can better afford to dispense with all drugs and physicians than to be without such a record; explain to him how he can control his fever by proper observation of directions given, and in fact talk to the patient as if he were a man and not a fool.

I am well aware that this does not meet the views of many of my professional brethren; that they often ridicule any such a procedure, especially as to exercise and taking of the temperature. It has been my experience that it is these same men who do not tell the patient his true condition, and I am more firmly convinced the longer I confine myself to tuberculous diseases in my practice, that the good results I obtain are in great measures due to such direction and instruction to my patients. It is no question in my mind but what many patients would do better at home with proper instructions and no medicine than they would with the most favorable climatic change and scientific drugs, without such instruction and advice as mentioned above. Especially in regard to the temperature record do I insist upon the faithful carrying out of directions given. If other directions and instructions are not complied with, the record will, in the majority of cases reveal the same. The taking of the temperature once a day is of but little value. The great majority of cases begin the day with a subnormal temperature, and in a true and unmixed tuberculous disease will, during the day at some time reach 100 or 100½ F. This means that at two periods during the 24 hours the temperature is normal. The record to be of value must be made every two or three hours at first. Later on when the habit of the patient is established and determined, and as the temperature runs nearer normal, it is not necessary to take it near so often. I fully appreciate that certain patients become what we may call temperature fiends. This, however, will not happen except in a patient where there is some marked variation of temperature, and if he is properly instructed, the same over-zealous care on his part will surely react for his good. Others claim that it would worry them if they were to be made aware of fever present. So it should. The bad effect of this kind of worry will be less destructive by far than will be the detrimental effect of long continued and oft repeated high temperature. The very fact that he recognizes, fears, anticipates and avoids high fever and its producing causes, becomes in itself a safety to him. He thus learns to avoid the causes of relapses, congestions, pleurisies, hemorrhages and a thousand and one things which act as pit falls to the blind wanderer when he is not properly instructed. It is unfortunate that the patients receive the idea that they "must walk off a fever." I know of no sadder sight than to see such a poor unfortunate dragging his way along the street

or attempting to climb our mountain paths in the self-conscious belief that he is doing what is best for him. The same patient probably eats his heaviest meal immediately preceding the time of his highest temperature, all unconscious of the fact that a heavy diet at such times surely results in intestinal indigestion, followed either by constipation or diarrhœa. He must be made to realize that the road to recovery lies by the way of the digestive tract, and that every thing, no matter whether actions, medicines, food stuffs or drinks which tend to lower the power of digestion and assimilation, is to be avoided strictly. Regarding his diet he should know that forced stuffing does not necessarily mean forced assimilation. He can force himself to eat heavily with a temperature of 102 and the stomach may take care of what he eats, but he can not force the intestines to properly prepare such food at such a time for assimilation; let him understand that his diet should be liquid and of an easily digested nature. If he is to have stimulants, and most cases will be benefitted by them if properly used, let him understand under what conditions the same are to be used and to what extent. Caution him about swallowing sputum, excess of sexual indulgence, about experimenting with patent medicines and following advice volunteered by friends. Let him understand that when a question arises in his own mind as to whether he should or should not do certain things, he is to follow the conservative course until he can get advice from his medical adviser. Show him wherein the symptoms which he attributes to having taken cold are frequently not due to "cold" but are the symptoms of extension of his disease, acute exacerbation of his tubercular symptoms. And finally let him understand that time will be required for recovery. That at least a year or more must elapse after the subsidence of all cough and expectoration, rise of temperature, etc., before he will have thoroughly demonstrated that all danger is past. Such a course of instruction naturally requires time, patience and forbearance on the part of the physician; it means that many points will have to be gone over and over again. The results of such a course, however, if commenced early in the case and carefully followed out, will doubly pay for the sacrifice of time and patience expended. It is herein that the physician can render the patient invaluable, if not the greatest aid. These details may appear trifling to the physician, and in a busy practice it is a temptation to avoid them, to give a few general directions, to write a prescription and instruct him to report again in a week or ten days, or to refer him to some resort.

After a long experience in sanitarium work I have been fully convinced that it is the attention to detail, the constant contact of physician and patient, the resulting education of the patient, his observance of improvement in others when details are regarded and his own habit of care herein acquired which gives sanitarium treatment the advantage over the outside method.

Having during the past few years been engaged in outside work only, and among tubercular patients, I have followed as closely as possible the same general plan and care, having my patient report in many cases daily and am now just as fully convinced that with the same care and painstaking as to detail on the part of the physician, equally good results can be obtained. The best results from medication in tubercular cases is undoubtedly now being accomplished by the administration of the remedy hypodermatically. This requires the constant daily attendance on the part of the patient and while our results are most gratifying from such methods, I am free to confess, without hesitation, that these same good results are as much due to the instruction and supervision of the patient as they are to the medicament alone. Each acts as an aid to the other. If either must be discontinued, let it be the latter.

4, 5, 6, Temple Court.

Criminals and Their Characteristics.‡

By Dr. J. H. McCassy, of Dayton, Ohio.

At the closing of the nineteenth century, with its marvelous achievements, progress in culture and refinement, unprecedented naval victories and the acquisition of new islands and new peoples, the United States finds itself confronted with an alarming increase of crime. During the past ten years the population of the United States has increased 25 per cent., but during the same time crime has increased 60 per cent.

In order to stay the rising tide of crime the assistance of the physician should be invoked to diagnose the disease and proclaim to the world that crime is the natural outcome and logical consequence of neglected education, heredity and disease, and that the "penalty" should be correction and medical treatment. The question of crime is no longer a purely legal one, but a medico-legal question. The country can flourish under Democratic or Republican rule, but not with crime so much on the increase.

‡Read before the American Medical Association at its 50th Annual Session held in Columbus June 6-9, 1899.

The criminal should be turned over to the doctor for treatment instead of to the politician. The wardens of the penitentiaries should be physicians.

It is cruel to torture the born criminal for his misdeeds. It would be just as humane to torture the epileptic because he has fits, or torture any individual because he is afflicted with the rheumatism. It is difficult to restore a man who is diseased, twisted and warped, yet every criminal has a divine spark. Repeated arrests and trials for criminals are poor economy. The second or third should be the last. The man who steals $10 is just as guilty of theft as he who steals $5,000, because the first would have taken $10,000 if it had been there. The law as administered at present is intended for normal beings and not the criminal who is an abnormal being. Careful and scientific treatment must be substituted for brutality and chains. Laws should be directed toward the criminal and not to the crime.

Man is subject to psychical and physical laws. No human act is without a cause immediate or remote. Human laws are of no validity unless they are in harmony with the laws of nature. The law of gravitation was discovered, not created. The same may be said of the laws of heredity and atavism.

The physical and moral characteristics of criminals are not so valuable in convicting them of crime as in classification and treatment. A person may have insane ancestry and inevitably doomed to insanity, yet his liberty cannot be abridged without some warrant from his actions or words. Also a person may have many of the essential characteristics of a criminal, and through favorable environment he may pass through life as an upright citizen. The characteristics that are of interest and value are as follows:

The great bulk of criminal heads are of average size, but small and large heads predominate. Thieves more frequently have small heads and murderers large ones. While there is a lack of symmetry in nearly all heads, this is one of the most constant features of criminal skulls. The weight of the brain is not of importance. The shape and relative development are of more value. In criminals the weight of the cerebellum is above the normal average. Confluent fissures are found in the brains of criminals and idiots with more than ordinary frequency (Benedikt). There are fewer convolutions in the brains of most criminals than in ordinary brains (Flesch). Meningitis has been found in 50 per cent. of criminals (Lombroso). Heart disease is found in 20 per cent. of criminals. Syphilis causes gummatous tumors in the brain and otherwise impairs the mental function and thus causes crime. Tuberculosis, owing to toxins circulating in the brain, leads to crime. High cheek bones go with strong animal passions. Criminals usually have the lower jaw excessively developed. The ears are outstanding, the nose is crooked and has a poor bony framework. The skin is dark and pale; wrinkles appear prematurely about the mouth and nose, and not on the forehead as in profound thinkers. The assassin has animal eyes, usually eyes like a cat's eyes. Criminals are frequently left-handed, have tendon reflexes absent or exaggerated, great acuteness of vision but defects in hearing, taste and smell. In them wounds heal rapidly as in the crude races, such as the Egyptians and Chinese. Criminals are usually flat-footed and below the average height and weight, and have deficient muscular development. Beautiful faces are rarely found among criminals. They are incapable of blushing. Thieves usually have great mobility of their features and hands. Their eyes are dark, small and restless, the eyebrows thick and close, the forehead usually narrow and receding. In the sexual offender the eyes are nearly always bright, the voice rough or cracked. The face is generally delicate except the jaws, which are usually heavy. The lips and eyelids appear swollen. The homicide usually has a large beaked nose suggestive of a bird of prey, and his eyes are glassy, cold and fixed. The sharper and forger, in order to inspire confidence, put on an angelical face and a clerical appearance. In criminals, as a rule, the beard is scanty, the hair dark, abundantly long and often woolly; baldness and gray hair are rare among them, but frequently among the insane, the business and professional man. Gray hair appears early in criminal woman. Women guilty of infanticide usually have an excess of hair on the face. Eleven per cent. of idiots have continuous eyebrows. Among criminals dark hair predominates except as regards sexual offenders, in whom fair hair abounds and the prevailing fair color is reddish. Red hair is infrequent among born criminals, but abundant among the insane and sexual offenders. Fair and red-haired persons are susceptible to fevers and zymotic diseases. The brightly pigmented persons with sensitive vascular system will soon be eliminated from the criminal calendar. The dislike of many for red-haired persons is without foundation. Although sensitive and quick to resent insults, they are warm-hearted and friendly and make good citizens. Some of the old sayings may be quoted here, such as, "Greet from

afar the beardless man and the bearded woman, or the woman with a man's voice."

The crimes of women are generally due to emotional causes, as love, jealousy, hate, revenge, vanity, etc., because woman's emotional nature has been more highly developed. Women persist in crime more than men because of the greater social ostracism of degraded women. Women endure pain and privation better than men, and therefore do not take to crime from want so readily as men. Women are more cruel than men, but criminal women are usually masculine. Females, being physically weaker than males, are addicted to crime only one-fifth as frequently, and only excel the males in the commission of poisoning and infanticide. Woman's natural form of retrogression is prostitution.

Even children readily form likes and dislikes for the persons they meet. They have an intuitive knowledge of strangers. In the child, up to a certain age, are manifested the saddest tendencies of the criminal. Even infants at the age of two to twelve months manifest anger and rage and will strike at nurses and break dishes (Lombroso). Stanley Hall says all children are liars. The Psalmist said in his haste that all men are liars, and were he living today he could say this with deliberation. Children are too often induced by fraud and ruse to do things they dislike. Thus lessons in deception are learned. The child may prefer wrong to right because the true moral sense is wanting, Many never pass from this to the higher plane. National education should be empowered to classify children according to their morals, as well as their intellects. One corrupt pupil may infect the whole school. Those feeble in morals and intellect should have extra guidance and instruction. The idea of goodness should be held up, rather that that of badness. The way to destroy evil is not to hold up and anylize it in order to make it hateful, but rather to let it pass out of consciousness. A child being asked if he wanted to go to heaven, replied that he did not care to; when asked the reason, he said he did not want to be alone up there with God and George Washington. Barnes, author of the commentaries, estimates that the number of persons eternally lost equal the number that are hanged. Other theologians are in harmony with Barnes.

A large number of people lack individual initiative and try to live in idleness. This leads to thieving. Alcoholism forms a great part of the vicious circle. Inebriety in itself is a symptom of more or less unsoundness of mind. When crime is committed by inebriates the probability of mental disease is very strong (Lombroso). The present writer, in an article (Dec. 3, '98, page 1344, Journal A. M. Ass.) gives the following: Eighty per cent. or drunkenness is due to heredity. Alcohol causes 33 per cent. of the diseases, 75 per cent. of the crimes and 50 per cent. of the poverty that afflict our race; 19 to 25 per cent. of criminals are born criminals, the balance being due to neglected education. Only 10 per cent. of criminal offenses are detected and punished.

There is a form of crime, actuated by moral cowardice. In it the person committing a small wrong is not possessed of sufficient moral courage to face the world and live it down, but commits a greater crime in order to cover it up. Frantz of Dayton, O., the slayer of Bessie Little, and Jackson and Walling, who beheaded Pearl Bryan, are examples of criminality due to moral cowardice.

We have born sailors, born fighters, born musicians and born physicians, born criminal lawyers, born poets—born criminals. The born criminals have invariably physical signs of degeneracy. They are akin to the victims of moral insanity. The high-class born criminals possess considerable intellectual ability. They are usually free from small vices. They assert that they cannot afford to drink, as it would in time impair their expertness and dexterity. They may be religious. They are vain, superstitious and sentimental. They lack curiosity, the fundamental element in progressive education. They lack forethought and are fond of tattooing. They are insensible to pain, which is the cause of their cruelty. They can undergo surgical operations without an anesthetic. They do not tremble while being arrested or during trials, but exhibit cool nerve and stolid bravery under great trials. The only remorse they have is for allowing themselves to be caught. They lack remorse for their crimes. This is a sure sign of incurability.

Criminality, insanity, and genius are on the same plane. In criminality, selfishness is the ruling principle, coupled with the power of discernment and choice. There is a delusional origin of first principle. Fraternal love in the humanitarian sense is absent; still, there is honor among thieves—i. e., among themselves. Moral paresis is often caused by cranial injury, fever, meningitis, dissipation, inherited fault, ect., and these may result in inebrity, hysteria, fanaticism, perverted temper, prostitution, etc.

Insanity is a delusional state of mind fixed against reason. No man is perpetually free from errors of fact or opinion, and there

are but few who will resist demonstration or conviction. The grand steps of civilization, often the product of genius, were conceptions which were regarded at their birth as "off" or insane, but in time they proved to be the pillars of progressive civilization. Three per cent. of the population dictate what 97 per cent. shall do. The mind can not excel its own powers of comprehension without intrinsic aid. Water cannot rise above its own level.

The church and the state have too long regarded the knowing of right from wrong as the supreme test of sanity. Judge Jeffrey voiced the true solution when he said that the best test for insanity is: "Can the the victim refrain or not refrain from the commission of homicidal, suicidal or other acts?"

It is difficult to tell the precise point at which criminality leaves off and insanity begins. In the commission of homicide, suicide, arson, etc., criminality often fades into insanity. Criminality may be the first manifestation of insanity. The criminal, like the insane, is frequently unable to refrain from criminal acts. In these cases the remedy is the intermediate sentence or permanent restraint. The criminal operates with a motive of gain. The insane or insane criminal does insane or criminal acts without a motive. The criminal by passion has no criminal characteristics and shows remorse for wrong doing. He does not commit crimes against property. He is simply lacking in self-control. He usually accepts discipline and correction with advantage to himself and all concerned.

With the insane criminal in the act itself lies the satisfaction, not in the object of it, while in criminals the act is only a means to an end. To the insane criminal crime is a pleasure; to the true criminal it is a playing business, necessity, it may be, disagreeable acts. (Garofolo). The born or instructive criminal looks upon the penalties of crime as the natural risk incident to the business without regard to the moral aspects of it. He dislikes to be deprived of the exercise of his craft. He loves to follow his craft the same as the ball player who loves to play ball, or the race-horse man who loves to follow the races, or the mechanic or artisan his business. All pursuits have their risks.

For many years physicians have been paying a great deal of attention to microbes and have thoroughtly established the germ theory of disease. Sanitary science and quarantine are powerful agents in the limitation and cure of disease. The same agents are just as powerful in the limitation and cure of crime. The criminal is a microbe gnawing at the social organization. There are only 40,000 of them in the penitentiaries of the United States. They must all be quarantined in order to protect society from further infection.

There are always in every community certain persons who are on the borderland of criminality or insanity, and at present it seems to be nobody's business to detect and apprehend them. The coroner of each county (with assistants in large cities) should be possessed of special qualifications for this work, and be armed with power to abridge the liberty of both children and adults who are unfit to be at large. It is a delicate matter for one neighbor to institute proceedings against another, and too often the community suffers through delay and neglect. Had Guiteau and Pendergast (both paranoiacs) been apprehended sooner, President Garfield and Mayor Harrison might be living to-day. Their conduct before the commission of murder was such as to warrant the curtailment of their liberty. This is true of many who are at large to-day corrupting and despoiling society. Treatment and discipline would save many of the unfortunates from the prison cell, remove their obliquities and transform them into useful and protective citizens and at the same time be a great saving of morals, property and human life.

The writer made autopsies on several criminals (50) and particularly insane criminals, and in nearly all cases found meningitis and more or less atrophy of the brain. Time will not permit me to relate more than a few examples:

A colored patient who was committed to the penitentiary for murder, refused to eat, and he was transferred to the insane asylum at Topeka, Kan., where he died six months later. An autopsy revealed meningitis and complete exclusion of the superior longitudinal sinus with inflammatory products. A patient, whose case was in the courts of Atchison, Kan., for two years for the alleged crime of rape, finally was acquitted of the crime, but was adjudged insane and sent to the asylum. When he died an autopsy revealed meningitis and atrophy of the upper part of both hemispheres of the brain. From an examination of a large number of cases and autopsies on a considerable number, the writer is convinced that a large number of patients are erroneously sent to the State prison instead of the hospital for the insane.

In conclusion, a fixed normal standard for comparison is a great necessity, and will soon be established. Physical signs and normal characteristirs will be more and more available, not only in the treatment

and cure of criminals, but also in classification, diagnosis, prognosis and prevention of criminal tendencies.

The physician being armed with the chemical laboratory, the X-rays and other modern means of scientific investigation, will naturally become the mentor of the people, and as he now protects our shores from infectious diseases, he will also protect society from crime.

The Treatment of Diabetes Mellitus.

By Robert C. Kenner, A.M., M.D., Louisville, Kentucky.

Diabetes Mellitus is an affection which is attended with great debility when the patient has long been a sufferer from it. In the treatment of this affection we have two indications, both of which have to be looked after in the most zealous manner, if we are successful in bringing about a successful termination of the affection.

The treatment naturally divides itself into two parts: First, the dietary treatment, and secondly the drug treatment. In carrying out the first indication, we will fail to bring about good results, if we do not have our patient confine himself to proper diet. Prof. Flint, several years ago, took occasion to say that after studying and treating large numbers of these patients, he was sure that the dietary treatment was of greater importance than the drug treatment. After treating a great many patients with Diabetes, I am compelled to say that I agree with Prof. Flint to a large extent.

A great difficulty which these patients encounter is sameness of food, and the fact that bread and other articles which are highly valued, are not allowed. But the physician can do much to overcome this rigor of the dietary by giving as large and varied a number of articles as can be permitted.

I have found patients who have been told that only a few articles of food could be taken, and they have existed on these so long that life had indeed become weary. I now rarely find it difficult for my patient to live strictly up to the diet, since I have given the dietary more elaborate study, and called to my aid articles which are needful and which until within the last few years I had not been acquainted with.

I herewith give a general outline of foods allowed in diabetes: meats of all kinds excepting liver, Poultry, Game, Fish, Eggs, Cheese, Butter and Cream in moderation, Lettuce, Celery, Cucumbers, Water-cress, Chickory, Dandelion, young Onions, Cabbage, Cauliflower, Spinach. String Beans, Beet tops, Radishes, Mushrooms, Truffles, Asparagus, Oyster-plant, Artichokes, Tomatoes, Filberts, Pecans, Almonds, Butternuts, Walnuts and Cocoanuts. Glycerine and Saccharine may be substituted for sugar in tea and coffee, when that is indispensable with our patient. I have reserved it until last to mention a flour manufactured by Farwell & Rhines of Watertown, N. Y., called "Special Diabetic Food." This supplies admirably the patient's appetite for bread, and the profession has found it an ideal Diabetic food. With me, it has come to be an indispensable article; it not only satisfies the desire for bread, but it contains food qualities which are of great worth and which answer all the demands of the system which are supplied by bread. On this food there is a gradual disappearance of the sugar in the urine, and there is also a steady increase in the patient's strength. To all my physician friends who have not tried this "Special Diabetic Food" prepared by Farwell & Rhines, I never neglect an opportunity to speak of its value. When you consider what has been laid down as allowable in diet, we will find ourselves culpable, I think, if we let our patients go along and become weary of the diet to such an extent that they cannot tolerate it.

This dietary on the converse is broad enough to allow frequent changes of diet. The change of diet should be so frequent and complete as to suggest nothing like monotony to the patient's mind. But not until we had the "Special Diabetic Food" prepared by Farwell & Rhines, could we successfully carry out this plan, because we had nothing to take the place of ordinary bread. Biscuit, gems, griddle cakes, etc., etc., made from this food are to be considered, in fact, of the greatest value in the control of this affection.

Now let me give a list of the foods which should be avoided: Sugar and syrups of every variety, wheat and rye flour, Indian corn meal, arrow root, sago, tapioca, oat meal, barley, potatoes, beets, parsnips, carrots, rhubarb, peas, beans, chestnuts, sweet fruits of any kind, chocolate, cider, malt liquors, champagne and other sparkling wines, etc., etc.

I shall now take up the drug treatment of this affection. When we take a patient, it is our duty to carefully examine him to ascertain whether or not there is any co-existent disease. In some instances we will find co-existent tuberculosis or other disease. In an event of this character, it is our manifest duty to add to our well-defined treatment ot Diabetes, whatever may be in-

dicated remedially for the co-existent disease condition.

In uncomplicated cases of Diabetes Millitus we can find no remedies which better serve us than arsenic and opium. Arsenic given in the form of a solution of the chloride has served me signally well. I begin it when I first take charge of the case, and continue it all the way through. I, of course, allow the patient to take it two weeks and leave it off two weeks. Given in this manner, I do not have *Oedema Arsenicalis*. This agent is a tonic and constructive, and the patient seems to gain strength under its administration. Plus the giving of the arenic in the manner already described, I rely also on opium to greatly aid me in the bringing about of a cure. I give this drug in the form of codeine, and this in doses of from one-half to four grains. I give this usually in one dose at bed-time, but when results are not encouraging, I give it at intervals of every four hours.

The urine should be frequently examined and the amount of sugar found will not only be a guide as to our therapeutic demands, but also informs us as to the genuine progress made by our patient toward ultimate recovery. Treated along these lines we will find that a great number of our patients will recover.

Those who are obedient and will observe the diet, as well as the drug treatment, will make, of course the greatest progress. Following the methods here laid down, I have treated sixty cases. My percentage of absolute recoveries has been 75%. Some cases drifted away from me, and some had co-existent Tuberculosis, and some died of acute affections; these being those cases where no treatment seemed to be of benefit. Taken all in all, this treatment has been most successful in my hands, and it has brought by far happier results than other methods.

Some Uses of Kryofine.

By J. C. Montgomery, M. D., Charlotte, N. C.

Kryofine is a p-phenetidin derivative. It is obtained by heating p-phenetidin and methoxy-acetic acid to about 120 deg. to 130 deg. centigrade. It crystalizes in needles from water at a temperature of from 98 deg. to 99 deg. centigrade. Perhaps no remedy that has been discovered in the past few years has brighter prospects to be more extensively used than Kryofine. It has been lauded by many, and will be criticised by others. Of all the coal tar products it controls fever the best and is the least harmful. Administered in moderate doses it has a stimulating effect upon the heart's action. Differing from many of the coal tar compound, Kryofine has no appreciable effect upon the respiratory rythm. The cyanosis so frequently observed in the use of acetanilid is rarely ever seen from the use of Kryofine.

Since the discovery of this remedy I have used it quite extensively, and have never had any bad effects from its use. In many forms of neuralgia, particularly the neuralgic pains accompanying hysteria, I have obtained splendid results from its use. In bronchitis I find Kryofine very useful. It reduces the fever and acts as a sedative to the inflamed bronchial tubes. It is especially good in the bronchitis and laryngitis of children. Several months ago I attended a child, two years of age, for bronchitis and laryngitis. The child was very croupy at times. For several days I administered the ordinary remedies for these inflammations. Regardless of the treatment the bronchitis extended to the lower air tubes, and the case resulted in one of capillary bronchitis. The temperature rose to 105. I ordered Kryofine given in two grain doses every four hours. Under this treatment the fever subsided, the croupy cough was relieved, and the patient began to improve at once.

At the present time bathing, according to the method of Brand, is enjoying an enviable popularity as a method of reducing temperature and preventing complications in typhoid fever. This practice may answer quite well in hospitals, and where there are conveniences for bathing, and numbers of assistants. It will scarcely be adopted in rural districts and in private practice. Much testimony to its efficacy has been presented, but seldom has any one taken the pains to describe in print the piteous and ineffectual appeals to be spared the distress of further Brand baths, of patients who, in spite of a continuance of the baths, died. Such cases never occupy a very conspicuous place in scientific reports. The pathetic side of the story never appears in print. For the proper reduction of the temperature in this severe and fatal disease, I have obtained the best results from the use of Kryofine combined with moderate doses of salol. Given with moderate, yet with adequate boldness, their effect carefully watched, they act with a reasonable degree of certainty, and undoubtedly have been the means of saving the lives of many persons who have suffered from typhoid fever. I usually prescribe the drug in doses from five to seven and one-half grains, not repeated too often. In the pyrexia resulting from the absorption of ptomaines, and the acute indigestion of children, Kryofine

is par excellence the remedy. It can be administered with bismuth and salol to suit the necessity of the case. In the pyrexia of acute intestinal catarrh, entero-colitis, and cholera infantum, the coal tar products should not be used. In these conditions, attended as they are by vaso-motor paresis, they are most scientifically treated by cold applications, or, if convenient, the bath. In cholera infantum this is the most powerful remedy we have to restore vaso-motor tone and reduce hyperpyrexia. In the profound nervous irritability, with high fever, that so commonly complicates acute intestinal diseases, the bath is remarkable in its action. In acute inflammation of the cerebral and spinal meninges, tubercular meningitis, and cerebro-spinal meningitis, Kryofine will be the antipyretic to administer. The cutaneous hyperæsthesia and the general irritability of these children preclude the disturbance attending the use of the bath, and furthermore, Kryofine is a powerful nerve sedative. In measles, the high fever attending the onset and acme of the eruptive stage can be well and safely controlled by Kryofine.

In conclusion I wish to corroborate the sentiments of an able writer in regard to the virtues of Kryofine. "To recapitulate, the chief merits of Kryofine, in my opinion, are these: rapidity of action, absence of depressing action upon the heart, respiration or pulse, comparative smallness of dose, absence of cyanosis following its administration, its promptness and reliability as an analgesic and sedative, and last but not least, its power as an antipyretic, reducing fever slowly, surely and safely, without depression or disagreeable after-effects, All of these properties combined will cause it to steadily win its way to a high place in the confidence of scientific medical men."

Clinical Notes on Nosophen, Antinosine and Nosophen Gauze.

By John S. Perekhan, M. D., Attending Gynecologist Lakeside Hospital; Lecturer on Anatomy and Physiology Lakeside Hospital Training School, Chicago.

Since September, 1898, the writer has used nosophen, antinosine and nosophen-gauze in over one hundred cases, all in private practice, and under personal observation. The results in every case were carefully watched and noted. I have learned during this time to consider nosophen the best new antiseptic iodine compound, equal to iodoform, and without the latter's disagreeable odor, and sometimes irritating and poisonous effects, and certainly superior to all other iodoform substitutes on the market that I am acquainted with.

Nosophen is obtained by the action of iodine on solutions of phenolphtalein, and consists of a light and impalpable yellowish gray, odorless, tasteless powder, containing 61.7 per cent. of iodine in combination. It has the advantage over other iodine compounds, that it may be heated to 220 deg. C. without decomposition. It is insoluble in water and acids, soluble with difficulty in alcohol, ether and chloroform, but readily soluble in alkalies, with the last of which it forms salts from which it is easily freed at low temperature by CO_2.

Antinosine is the sodium salt of tetra-iodo-phenolphtalein; it is a dark blue powder, readily soluble in water and alcohol. Unlike to nosophen, it is changed on exposure to the carbonic acid of the air, to nosophen and carbonate of soda.

In most of the cases treated nosophen was used as a dusting powder, but it was used us an emulsion and also mixed with collodion. Being soluble only in the alkaline secretions of the body, the surface of the wound, especially when suppurating, was thoroughly cleansed before it application, and as its siccative and hemostatic properties are stronger than those of iodoform it was used sparingly or not at all on large secreting surfaces and three per cent. nosophen-gauze moistened in sterilized water to increase its absorbing power was substituted.

In clean aseptic wounds, when union by first intention is desired, I think nosophen collodion emulsion is the ideal dressing to protect the wound from the air by an impervious antiseptic covering.

Nosophen emulsion was used in an interesting case, to be published shortly, of strangulated right inguinal herniotomy, performed on a man sixty-six years of age and in which the sac contained only the prolapsed and inflamed vermiform appendix. Suppuration having taken place, probably from infected catgut, the suppurating cavity was treated by injection of nosophen emulsion, one part to eight parts of equal quantities of sterilized glycerine and sweet oil, with very rapid and satisfactory results.

Nosophen was used in several cases as a dressing powder for the cord in new born children, and it has given me the best of results; it keeps the cord perfectly dry, hastens its separation, and we are always sure of its safe and non-irritating action on the child's delicate skin.

In four cases of sore nipples nosophen powder was used successfully, mixed with sterilized sweet oil and glycerine in proportion of 1 to 8. Its antiseptic, siccative,

hemostatic and anesthetic action is gratefully appreciated by the patient; it is perfectly harmless to the nursing baby even if washing of the nipple just before the child is nursed is neglected.

In all cases of confinement in which nosophen and antinosine were used the results obtained were very favorable; antinosine was used in two per cent. solution as a douche and also for ablution of the external genitals and disinfection of the hands, instruments, etc. Nosophen was generally used after delivery as a dusting powder on the bruised mucous membrane and contused wounds of the commissure. In one difficult case of breech presentation in a primipara, twenty-eight years of age, in which the forceps were used on the after coming head, the perineum was considerably torn; immediate perineorrhaphy was performed and the vagina douched twice daily with one per cent. antinosine solution, and the perineum dusted afterwards with nosophen powder. Union was quite satisfactory.

Nosophen gauze and powder was also used beneficially in four cases of varicose ulcers. The secretion diminished rapidly under wet dressing of nosophen gauze and later on the ulcer was dusted lightly with the powder. As the latter is decidedly siccative it should not be used very freely or too frequently, as too firm a crust is not desirable for good drainage. Three cases of suppurating buboes were treated by incision, curettement and packing with three per cent. nosophen-gauze, with excellent results and without the annoying and disagreeable odor of iodoform.

Eight cases of chancroids and two cases of chancre were treated with nosophen and antinosine. The chancroidal cases were first treated, after cauterizing them with HNO_3, with powdered antinosine and in three or four days nosophen was substituted. Antinosine powder is first used because it is more soluble, less drying than nosophen and possesses an intense bactericidal action. Nosophen in these cases seemed to act as well as iodoform, and in no case irritation or maceration of the skin or mucous membrane around the ulcer, so common after the use of iodoform, were noticed.

All practitioners know how difficult it is to use iodoform in the treatment of venereal cases, especially in private practice. The odor of iodoform carries with it, in the minds of the laity, a strong suspicion of "secret" diseases, and patients often refuse, and rightly, to have it used when they are compelled to be out and at work. If for no other reasons the surgeon and the dermatologist will welcome any efficient and odorless substitute.

Favorable and satisfactory results were secured from nosophen in the following cases: 3 circumcisions, 1 senile gangrene, 5 carbuncles, 4 abscesses of Bartholin's glands, 2 lacerated perineums, 1 ingrowing toenails, 1 herniotomy, 1 abdominal section, 3 inflamed vaccination sores, 3 inflamed hemorrhoids, 1 chronic otitis media, 6 ulcerations of the cervix uteri, 16 cases of scalp, face, and other incised, contused and lacerated wounds.

Antinosine was used mainly as an antiseptic solution for washing, irrigation, etc., the strength varying from one-fourth to two per cent.

On long standing, antinosine solution is changed by the action of carbonic acid into nosophen, which is insoluble and thrown down as a rusty precipitate, but this precipitate can readily be transformed into antinosine on heating the solution by boiling. On account of this change it is recommended to add glycerine when a stock solution is made, and it is claimed that the glycerine protects solutions of antinosine from decomposition. The glycerine water solution is not blue, but wine red, and it is recommended to use fresh distilled water in making and diluting the stock solution, as ordinary hydrant water causes a rusty brown precipitate of nosophen calcium, which is not transformed into antinosine on boiling, as is the precipitate of nosophen found in plain watery solution of antinosine.

As the use of distilled water is not always practicable in private, and even in hospital practice, I have in all cases had the solution made with warm sterilized water immediately before using.

In about one dozen cases of curettement of the uterus a one per cent. solution of antinosine was used as an irrigating fluid and lately three per cent. nosophen-gauze has been employed for packing the uterus after curettement. The results in this class of cases were uniformly satisfactory.

In a case operated upon for retroversion and retroflexion of the cervix, and in which an intrauterine stem pessary was used, notwithstanding that every care was taken to prevent infection in removing and cleaning the pessary and its re-introduction, on the sixth night the patient had a chill and her temperature was 103 deg. The stem pessary was removed, the uterus irrigated three times with a one per cent. solution of antinosine at intervals of six hours, and in twenty-four hours the temperature was normal and so remained.

In one case of a three months' abortion, brought on by use of instruments, I was

called to see the patient thirty-six hours after expulsion of the fetus. On examination I found the placenta retained and the patient's temperature registering 103.2 deg. She was flowing quite freely and showed every indication of infection. The placenta was immediately removed, the uterus irrigated with a two per cent. solution of antinosine and packed with three per cent. nosophen-gauze. The packing was removed in twenty-four hours and an intrauterine douche of antinosine solution again given. The temperature dropped to normal, and recovery was uneventful.

My experience with antinosine solution in cystitis is limited to six cases. In all the pus was diminished and the remedy seemed to show a distinct anti-bacterial action. The improvement in the amount of pus in the urine was very striking after changing the irrigating solution from boric acid to that of antinosine. One-half per cent. solution was the strongest borne by the patients, and in two of the cases even this percentage caused painful symptoms similar to those caused after the use of strong solutions of bichloride of mercury or permanganate of potassium. One female patient complained of a burning feeling in the bladder for nearly an hour and described the sensation as if her womb and rectum were coming out; this patient, however, recovered completely and the urine has been free from pus for the last five months.

The writer has also used antinosine solution for deep irrigation of the urethra in cases of chronic urethritis, the strength of the solution varying from one-half to one per cent. One very stubborn case in which bichloride and other solutions were faithfully used for weeks without any marked benefit, was cured after half a dozen irrigations with one per cent. antinosine solution. The patient is instructed to urinate just before being treated, and a large sized sound introduced for the purpose of dilating any stricture, crushing the minute granulations and emptying any distended follicles. The retrojector is then introduced to the neck of the bladder and the irrigating solution turned on. If the solution is not returned, the retrojector is pulled out sufficiently until the fluid appears at the mouth of the urethra. The antinosine solution is used as hot as the patient will bear without discomfort, and continued until three or four quarts are used. As the first urination after treatment is very painful, similar to what is produced by bichloride solution irrigation, the patient is given half a teaspoonful of bicarbonate of soda before and also after treatment.

I am indebted to Dr. Henry T. Byford for the information that he has used nosophen in his gynecological practice for the last four years in both small and large operations. Also he is in the habit of packing the uterus after curettements with three per cent. nosophen-gauze. The results in his hands have been exceptionally satisfactory, and he considers nosophen a good substitute for iodoform.

As an antiseptic iodine compound nosophen is a valuable preparation, and at the same time a good substitute for iodoform as a bactericide. It is hemostatic, sedative and antiseptic; it hinders germ development, diminishes suppuration, and promotes healthy granulations. It has a decided desiccative and cicatrizing action superior to iodoform. Practitioners who have failed to discover an efficient substitute for iodoform will find in nosophen, after giving it a thorough and careful trial, an excellent, odorless, tasteless and non-toxic antiseptic.

2406 Prairie Avenue.

Undried Cascara Sagrada.

By F. R. Millard, M. D., San Diego, Cal.

Continuous use of cascara sagrada, since a time when we did not know its botanical origin until now, has bred in me a conceit that I know something, but not all, about it. My use of the undried bark has been confined to that grown in Southern California, and as this bark has, when dried, medical properties identical with those of the Northern grown bark, it is fair to assume that medically the two barks when undried are also identical.

Therapeutists tell us that the bark should never be used until it has been cured one or better two years. This is, perhaps, true as to prescribing it for children, but it certainly is not true as to adults. It is true that an adult can, with perfect safety, take an amount of the cured bark which, if it had been undried or recently dried, would have caused death. But this does not prove that the undried bark should never be used. What it does prove is that by long drying the bark loses a very powerful principle. And this fact should stimulate us to try and learn if this principle cannot be utilized for the benefit of our patients.

We can find disinterested benevolence in the dictionary, and "pure religion and undefiled before God" in the bible, but no man now living ever saw either of them. So we can find patients with chronic constipation cured in medical journals with cured cascara sagrada. But I never saw one, and very much doubt whether any one else ever saw a *really chronic case permanently cured by it alone.* On the contrary, I have pre-

scribed the undried bark for patients who have used the cured bark for years with relief for a few weeks or months, and then a return of the trouble. But after a time on the undried bark the cure was permanent. It is true these were patients lately from the middle west, or eastern States, and it may be urged that change of climate should be credited with the permanency of cure. But I do not think so. Concede that cascara sagrada is the best single remedy we have for chronic constipation, still we can treat this condition just as successfully without it. But there is no single remedy, nor any combination of remedies, equal to the undried bark for the cure of certain forms of chronic diarrhœa. That form which is characterized by exacerbations and remissions of longer or shorter duration, with but little pain or tenesmus is surely cured by it alone. This statement is made after twenty years use of it with no failure when the patient took it as directed. Of course a judicious diet expedites the cure. But many have been cured who took the common California ranch diet of hot bread, coffee, bacon and beans three times a day.

There is another form in which there is much tenesmus, and after straining a discharge of a little blood. Here there are ulcers just within the anus, and if by local means these can be got to heal the undried bark will remove the pathologic condition in the bowel above the rectum. The fact that at different seasons of the year the bark contains differing amounts of water, makes it impossible to accurately prescribe it by weight. My plan has been to fill a bottle about half full of the bark, and then fill it full of a mixture of equal parts of water and whiskey. Of this the patient usually takes a teaspoonful, one-half hour to one hour before each meal, and at bed time. For some the dose may be two teaspoonfuls. For other patients it has been found best to give larger doses, but only two times a day, i. e., before breakfast and before supper.

Probably there are very few doctors who were in practice during the sixties who do not have some unpleasant recollections of the trouble they had in curing returned soldiers of their chronic diarrhœa, and now that our soldiers are returning from Manilla it will be strange if the younger men do not get a chance to try their skill in treating chronic army diarrhœa. But if every one that returns has this trouble the young men will not treat nearly so many as were treated between 63 and 75, by which time all but the toughest were either well or dead.

Only a small minority of doctors can get the undried bark, and it is not known whether a fluid extract from it would undergo a curing process in time, analogous to that which the bark undergoes by drying or not. I am inclined to think it does not, and if so the profession can have a very valuable remedy for chronic diarrhœa, and as I believe for some other conditions also. Some inquiries in this direction were being made when misfortune, or fortune, compelled me to quit all outside practice, and now after a dozen years it is certain that for me the "incident is closed," and if any thing is ever known about it some one else must learn it. But it ought not to be necessary to remind the profession that a vegetable principle that is capable of killing a strong man, as this evanescent principle of cascara sagrada can do, is worth studying. It is quite probable that the action of the undried and of the cured bark is the same, so far as the muscular and mucous structures of the bowel is concerned. But in their action on the abdominal brain and its termini, if they are the same in kind, they are far from being the same in intensity.

Ectopic Pregnancy.‡

By John W. Long, M.D., Salisbury, N. C.

DEFINITION.

The term Ectopic Pregnancy is preferable to that of extra-uterine pregnancy, because (1) the word ectopic means *out of place*, and in these cases the product of conception is out of the normal place, (2) it is claimed that in one variety (the so-called interstitial) the fetus actually develops within the uterine tissue, therefore, can hardly be called extra-uterine.

PHYSIOLOGY.

It may be stated briefly that conception normally occurs in the fallopian tube. This statement is contrary to the views held by earlier obstetric writers, who supposed that fertilization of the ovum occurred in the upper part of the uterus; the tubal cilia having wafted the ovum downward and the uterine cilia the spermatozoa upward. Hofmeier has shown by recent observations that the current of the uterine cilia is like the tubal current from above downward. Again in the lower animals, spermatozoa have been observed time and again to make their way up into the tube and have even been seen swimming in the peritoneal fluid on the surface of the ovary, where, as Kelly says, they lie in wait for the ovum. These facts, together with the additional knowledge that spermatozoa may retain their vi-

‡Read before the North Carolina Medical Society at Asheville, N. C.

tality for a long time after copulation, even as much as six months in the female bat, and, according to Duhrssen, as much as three and one-half weeks in woman, certainly tend to show that fecundation normally occurs in the tube.

Therefore, it may be confidently stated that an ectopic pregnancy is a pregnancy in which the normal downward passage of the fertilized ovum through the tube has been arrested.

CAUSES.

In a general way it may be stated that the arrest may be due to:

1. Obstacles within the lumen of the tube.

2. Some disease or abnormality of the tubal wall.

3. Factors external to the tube, encroaching upon or obliterating its lumen.

Under the first head may be mentioned intra-tubal growths and constrictions; under the second salpingitis, persistence of fetal type, multipleostiæ, etc; while the third division embraces tumors, adhesions, twists, bends, and in fact, anything tending to hinder the free passage of the fertilized ovum along the lumen of the tube.

PATHOLOGY.

As this is a clinical paper the pathology may be dealt with briefly. It should be noted that while the placenta develops at the abnormal location of the fetus, it is only the fetal portion that does so, while the maternal portion of the placenta develops in the uterus. It is this maternal portion that at some time during the progress of the case is cast off and often leads the obstetrician to believe that an abortion has occurred. At the point along the tube where the impregnated ovum may find lodgment, there begins at once an active congestion resulting in the thickening of the surrounding tissues and the formation of the fetal sac, following the primary thickening there occurs thinning and stretching of the fetal sac at its weakest and most unprotected point. This is due to the rapid growth of the ovum or to hemorrhage within the sac. The outcome of the extreme thinning and softening of the tissues is rupture of the sac, allowing the contents to escape either into the abdominal cavity or between the folds of the broad ligament. This usually occurs from the eighth to the twelfth week. Exceptions to this statement may be noted. It is barely possible for the pregnancy to go to term without rupture of the tube. When rupture does occur the placenta may retain its hold in the tube while the fetus escapes into the peritoneal cavity, or the rupture may occur between the folds of the broad ligament and even be followed later by a secondary rupture into the peritoneal cavity.

The limitations of this occasion forbid even a mention of all the pathological freaks that may take place. The most important feature of a rupture is the *hemorrhage*. But for the hemorrhage and the subsequent infection, the rupture of an ectopic fetation sac would probably cause very little disturbance in the woman's abdomen. If the hemorrhage is at all profuse the woman is at once precipitated into a profound shock and even death. The hemorrhage takes place in the direction of the rupture; either into the peritoneal cavity or between the folds of the broad ligament. If in the latter place, it is limited by the resistance of the tissues, therefore, not so dangerous as when it escapes into the peritoneal cavity. If the woman survives the first shock of a peritoneal hemorrhage, adhesions quickly form being nature's supreme effort to save the peritoneum from further invasion. Even after adhesions have formed, hemorrhage may continue or recur accompanied by shock, heart failure, etc.

It is readily understood how the condition, presented by the rupture and hemorrhage offers a favorable nidus for the development of infection, and as a matter of fact, this usually occurs in those cases that do not immediately succumb. As a result of the infection, we have the blood clots breaking down into pus forming a so-called pelvic abscess, or the infection may be more widespread producing general peritonitis and septicæmia. In either event death is likely to terminate the case unless surgical measures are resorted to.

In the general wreck the fetus is, as a rule, lost sight of; it is either absorbed by that great lymphatic gland, the peritoneum, or is broken down and lost in the suppurating mass. However, the fetus may escape with its life and go on to term either as an intra or extra-peritoneal pregnancy; or life having ceased, be converted into an encysted mass or lithopedion.

CLINICAL HISTORY AND SYMPTOMS.

It is believed that a tubal pregnancy is more apt to occur after a period of sterility. A woman sterile for some years is seized with the ordinary symptoms of pregnancy; often, in additiou, there is a different or "queer feeling," as she expresses it. Perhaps the last period, instead of being entirely absent, was a mere dribble. She will probably miss the next period and at about the eighth or ninth week will notice her linens slightly stained and there will pass from the uterus "some pieces of flesh" resembling the products of an abortion; indeed

they are pieces of the maternal portion of the placenta. Rupture of the fetal sac often occurs about this time. This may be precipitated by any act of violence as a misstep or blow. One of my patients ruptured her tubal pregnancy by a sneeze. The prominent symptoms accompanying a rupture are pain, shock, collapse. If the patient survives the primary shock and hemorrhage she will suffer all the horrors of peritonitis and sepsis. One patient that I saw told me that she suffered so fearfully that she got down on the floor and tried to but her brains out against the wall.

PHYSICAL SIGNS AND DIAGNOSIS.

A physical examination prior to rupture will reveal a pulsating tumor occupying the situation of one of the tubes. The presence of such a tumor with the symptoms of pregnancy should determine one to operate. After rupture, the diagnosis is still more easy because of the history; first, of the symptoms of pregnancy, second, of the shock and collapse. In doubtful cases, err on the side of mercy and operate.

TREATMENT.

Prior to the fifth month or the period of viability, whether before rupture or after, there can be but one rational treatment and that is surgical. Among surgeons this question is beyond cavil. After the fifth month, the interests of the child demand that we wait, but do not cease to watch and be ready to operate at a moment's notice.

OPERATION.

The method of operation will be determined by (1) the conditions present, and (2) the predilections of the operator.

Briefly, my choice in all ruptured and newly ruptured cases is to operate through the abdomen; in cases that have been ruptured some days or weeks the best route is through the vagina, as a rule.

REPORT OF CASES.

My experience with these cases has not been large, having seen only six cases, so far as I know. I add this qualification because I am convinced that this condition, like appendicitis, often passes unrecognized. I append the report of only a few cases by way of illustration.

CASE I.—Mrs. M., age about 19; the wife of a member of one of our graduating classes came into my office with her husband who wished me to examine her. She had missed one period and at the time of the second one began to dribble and passed several pieces of flesh-like tissue. She had complained of constant pain in the right pelvic region for several weeks. On examination I found the uterus slightly enlarged while to the right was a pulsating mass the size of a small orange. The tumor was freely movable and I expressed the opinion that it was probably an ectopic pregnancy and advised an immediate operation. I had just lectured on the subject of ectopic pregnancy and this young doctor and his wife had been reading up the subject, so they readily acquiesced to my advice. The same day the lady was taken to the Old Dominion Hospital, where I operated on her. After being put under an anæsthetic she was examined by my colleague, Dr. Geo. Ben. Johnston, who agreed in the probability of an ectopic pregnancy and the indications for an operation; he also kindly assisted me in the operation. When the abdomen was opened there were found several ounces of fresh blood in the pelvis. The right ovary was the site of a newly ruptured tumor containing blood clots. No fetus or definitely formed placenta was seen, nor was the tube involved. The rupture must have occurred between the time I saw her in my office in the morning and the time when the abdomen was opened. It is probable that the sac was ruptured during the examination under anæsthesia, as both Dr. Johnston and myself palpated the parts bi-manually.

It may be objected that this case was not certainly one of ectopic pregnancy. I grant the exception, but it must be admitted that the history of a newly married woman, amenorrhœa, the recent pain and discomfort in the right side, the gastric disturbance, the dribble, the passage of flesh like lumps, the tumor, the fresh blood in the abdomen —all point to an ectopic pregnancy.

CASE II.—Mrs. G., sterile several years; had missed two periods. In the ninth week she was sitting at the breakfast table when she sneezed and was at once taken with a violent pain in the left side of the pelvis and fell to the floor greatly shocked. My friend, Prof. C. A. Blanton, was called to see her, and later, at his request, I saw the case with him. At the time of the consultation a tender mass could be felt filling the left pelvis. On opening the abdomen we found the left tube to be the site of an ectopic pregnancy. The fetus was not seen but the placenta was removed from the tube and later the tube itself. The rupture had occurred on the anterior surface of the tube, and the hemorrhage consequently had escaped into the anterior segment of the pelvis above the bladder, and not into the cul-de-sac.

CASE III.—Just after going to my present location, I was asked by my associate, Dr. John Whitehead, to see a colored wo-

man, the mother of several children, who, after missing three periods, was seized with an intense abdominal pain, shock, etc. The woman had been in the throes of peritonitis three months when first seen by Dr. Whitehead. The next day he asked me to see the case with him. A mass was found filling the entire pelvis and extending half way up to the umbilicus. The woman was so exhausted and in such extremis that we feared to give much anæsthetics, so Dr. Whitehead cautiously administered a very little, while I quickly made an incision in the posterior vaginal fornix, opening into a large septic cavity full of broken down blood clots, detritus and pus. Free drainage soon brought this woman from a mere skeleton to 160 pounds, her usual weight.

Case IV.—Mrs. R., a western lady, recently moved to a North Carolina town, having been several years sterile, missed two periods, and becoming anxious about herself, introduced a pencil into her uterus. Shortly afterwards uterine pains and flow set in. These continued for a week, when she was suddenly seized with an agonizing pelvic pain, precipitating her into a profound shock. Dr. Staunton, of High Point, was attending her, and the woman having confessed the use of a pencil, he suspected a ruptured uterus. And he certainly had good reasons for thinking so. The woman rallied after a few hours, and the next day had another attack. On the fifth day I was asked to see the case with Dr. Staunton and Dr. Scott of Mebane. I found the woman highly septic, delirious, vomiting and greatly prostrated; temperature ranging from 102 deg. to 104 deg.; pulse frequent and feeble; abdomen tympanitic and tender. On bi-manual palpation the pelvis and half the abdomen was found to be filled with a very tender mass, while the uterus was pushed upward and well to the front. The case was puzzling, but I expressed the opinion that it was one of ruptured ectopic pregnancy, in spite of the pencil episode. Drs. Staunton and Scott concurring, we lifted her gently on to a cot, placed the cot in the baggage car and took her to Salisbury, where she was operated on immediately on our arrival at the sanatorium. A vaginal incision opened at once into an immense cavity filled with blood. Putting in two fingers I brought forth the fetus and more than a half gallon of blood clots. The adherent right tube and ovary, with the placenta attached, were loosened up and drawn through the vaginal opening, a ligature was placed around the tube close to the cornua and the right appendages cut away. A rubber T-drain was placed into the cavity and stitched to the side of the incision, while plain gauze was firmly packed into the cavity. This woman was in extremis, yet in spite of the wide-spread peritonitis and sepsis she progressed steadily to a perfect convalescence.

I have operated on two other cases—one ruptured and the other unruptured—but I will not weary you with the details of them; suffice it to say, that all my cases have recovered.

DISCUSSION.

Dr. Royster.—I was unfortunate enough not to hear all of Dr. Long's paper, and, therefore, am at some disadvantage in discussing it, but I cannot allow this occasion to go by without endeavoring to say a few words. I think we all ought to thank Dr. Long for bringing this subject before us, as well as for exhibiting such successfully managed cases. During my term of service in the hospital at Pittsburg I saw five cases of ectopic pregnancy, and since being in practice myself I have operated on five and seen two others operated on. I think the condition, as Dr. Long says, is much more common than it is thought to be, and very frequently not recognized. In a series of 1300 general autopsies on men, women and children performed in Philadelphia, there were found to be about a dozen cases of ectopic pregnancy which had not been recognized. It is no doubt a surgical condition, just as I believe appendicitis is, and nothing short of a radical operation will do good. I have been somewhat wedded to the treatment by vaginal incision in treating these cases. I saw Dr. Keely treat two cases by this method, being among the first he did in that way. There is no doubt that these cases have to be selected. It would not do to perform vaginal incisions in recent cases, in which there would be some fear as to further hemorrhage, but cases which have gone longer and come under the observation of the surgeon later, where the bleeding has stopped and the blood clot formed, it is simpler, less dangerous, and is productive, I think, of as good results as abdominal incision. In the four cases I have operated on two were by the abdomen and two by the vagina. The first one I have already reported. There was a double pregnancy, one inter-uterine, and one extra-uterine. The case was seen a month after the first child was delivered. The other three cases all recovered, one by the abdominal route and the other two by the vagina. The mortality of these cases is not very high if ordinary skill and judgment is used. In the cases Dr. Long has described, where the conditions come on suddenly, of course the operation must be done at once to be of

benefit. If it cannot be done you must support by stimulants, and sometimes it does pass off and you can operate later. The condition is not hard under some circumstances to diagnose. I have been accustomed to lay a great deal of stress upon the history of the case; the varying period of sterility, the former history of pelvic disease, though this is not so important, the suspicious signs of pregnancy, the pain, and, of course, the attack itself, all when taken into consideration in their natural order will sometimes point out a diagnosis even before examination. That has been my experience. I think it is well for physicians to be on the lookout for this condition. If I had been given a case like the one of which Dr. Long recited I should presume that she had extra-uterine pregnancy. This condition is frequently mistaken for pelvic disease. Dr. Kelly himself, when I was in the Johns Hopkins Hospital, had a case which he claimed was pelvic disease, but his assistant thought it was extra-uterine pregnancy, and they opened the abdomen and found it was extra-uterine pregnancy. There are cases of extra-uterine pregnancy which frequently have a temperature of 102 or 103 without having septic conditions.

I am very thankful to Dr. Long for bringing this subject up, and I cheerfully add my little mite, because it is always an interesting subject to me.

Dr. Lott.—We are much indebted to Dr. Long for his paper. I believe the conditions occur oftener than supposed. Like some other subjects, it is not given the careful thought and study it deserves, and many women die simply from want of knowing what is the matter with them. Many die from supposed colic, meaning a ruptured tube, who should be saved. It is a case of hemorrhage, and while ligation of the bleeding vessel requires wisdom, boldness and skill, it will often save our patient.

Physicians to Pass an Examination Before Entering the Employ of an Insurance Company.

When a physician is employed to examine an applicant for a policy in an insurance company, it is presumed that that physician has the ability to determine the physical conditions of the persons who make an application for insurance upon his life. Any intelligent man would suppose that he was familiar with physical diagnosis, that he understood urinalysis and possessed the means to accurately determine whether the urine contained albumen, sugar or pus, or was normal; was familiar with the use of the microscope and could find out whether there was casts in the urine or there existed tubercle bacilli in the sputa.

While insurance companies intend to have no other than scientific men in their employ, such is not always the case. We have seen men in their employ who have not the knowledge to determine anything, whose opinion would go but for little among scientific men. We see occasionally such men in the employ of the New York life and other insurance companies. The explanation to this condition of affairs is that the solicitor of the company wants to do some business in the town, he is shown to the office of an advertising doctor, and they are in many towns of the country, he has the doctor make his application for the medical examiner, he readily secures the endorsement of two physicians, and he secures his appointment, and he is at once in the employ of the insurance company.

With the help of the local agent he is able to write up the policy, and if that physician was subjected to an examination he could scarcely answer a question intelligently. Why not insurance companies adopt the same method as the government of the United States, who require all who desire positions in their service to pass an examination in addition to the testimonials relative to their character? Such being done no advertising cancer quack or ignorant pretender would apply. There would be less reports of death from consumption or Bright's disease of the kidneys which occur at no distant date from issuance of the policy on the life of the insured.

Wm. F. Mitchell.

Lancaster, Mo.

Brief Reports of Interesting Cases.

Dr. J. P. Crozer Griffith reports three very rare cases in the Archives of Pediatrics for June, 1899.

Nervous Incontinence of Fæces, a very rare troble, closely allied to incontinence of urine and in this case was associated with it. The trouble was in a boy 8 years old, of very nervous ancestry, had always suffered from incontinence of urine. For the past two years had twitching in the face and shoulders.

The patient had no control over the bowel movements at all, no cramp or painful sensation. Punishment as a means of treatment only made a bad matter worse. No excitement or other cause can be discovered. Examination showed a slightly built but well developed boy, prepuce long but no adhesions; rectal examination negative; considerable twitching, perhaps habit spasm. He was put on Fowler's solution with in-

creasing doses of tincture of belladonna. Some improvement after one week, in two weeks very much better, except for incontinence of urine, which persisted in spite of physiological effect of belladonna. In two months he was entirely cured, but had slight return on stopping treatment for three months.

The second case was one of Angio-Neurotic Œdema in a girl two years old, associated with urticaria. The hands and forearm were the parts affected.

The third case was Peritonitic Pneumonia in a boy four years old. He was taken acutely ill with obstinate constipation, abdominal distension, and pain and tenderness in the right iliac region. One physician who saw him made a diagnosis of appendicitis. Temperature ranged from 103 to 105 deg. Examination of chest showed consolidation of left lung, which ran the usual course, terminating in crisis on the fifth day. This type belongs in the same class with the "gastric," "cerebral," "abortive," and other forms often discribed.

When we think awhile perhaps we can readily recall cases of pneumonia in children in which distension and pain in the abdomen was among the prominent symptoms. It would be well to be on the look out for such cases, as an operation for appendicitis would hardly add to the chances of a successful result.

Clinical Lecture.

A very interesting surgical clinic was held by Dr. McBurney at the Roosevelt Hospital as reported in the Tri-State Medical Journal and Practitioner.

Case 1.—Inguinal hernia. Man was shown operated on a few days previously for what appeared to be ordinary inguinal hernia which had descended into the scrotum; had worn a truss for ten years; never had strangulation. A rare condition was found at the operation, the sigmoid flexure of the colon was in the sac bound down by peritoneum. The hernia had come through the folds of the mesentery and was not covered by peritoneum. The sac could not be ligated at the level of the peritoneal surface without wounding the gut, so the sigmoid flexure was reduced together with a portion of the sac and the orifice closed by sutures. The patient was doing well.

Case 2.—Appendicitis. Man had two mild attacks occurring within a few weeks. Each attack lasted about three days and had all the characteristic signs. At the time of operating there was some tenderness, the abdominal walls were split so as not to injure them. The appendix was found with difficulty high up in the groin bound down by adhesions, it was long with a stricture about the middle, every condition favorable for an acute attack at any time. The patient made a good recovery so far. This case would show that a grave condition often exists without marked rise of temperature. It is hardly safe to dismiss a case as well from an attack unless the appendix has been removed. The operation of safety is before the third attack, in some cases before the second.

Case 3.—Syme's Amputation for Deformity of Ankle and Resection for Deformity of Knee. Man age 22, had spinal inflammation when two years old, paralysis of the right leg from trunk to the toes, some muscular control though much crippled, hip joint in good condition, knee very loose with posterier displacement of the head of the tibia, impossible to extend limb, imperfect and useless condition; he now uses two crutches; it was decided to do a resection at the knee and a Syme's at the ankle. This amputation would give better stump to stand on or for fitting artificial foot.

The Meeting of the Association of American Medical Colleges.

At the meeting of the Association in June, at Columbus, Ohio, we notice that the following colleges were admitted to membership: The Medical Department of the Buffalo University, the Medical Department of the University of North Carolina, the Medical Department of Kentucky University, the Meharry Medical College of Nashville, Tenn. We feel certain that this Association will do much for the cause of professional education. The medical schools of the country must keep step with the progress in medicine and this Society of Schools has for its purpose the keeping of the educational standard to the front.

The next meeting of the Association will be held at Atlantic City, N. J., in June, 1900, under the guidance of the following officers: Parker Ritchie, of the University of Minnesota, President; Edward Bentley, of the Arkansas University, Vice-President; Bayard Holmes, of Chicago, Secretary; Harold Williams, of Tufts' College, Boston, Treasurer.

Appendicitis.

Dr. Robert T. Morris can be put down as one of the strong advocates of the surgical treatment of appendicitis. He says: "Personally, I would allow my junior assistant on the hospital staff to operate upon me for appendicitis, rather than try the best medical treatment for one day."

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Typhoid Fever.

Dr. H. A. Meltzer, Leipsic, Germany, gives no medicines of any kind, relying solely on nature's materia medica. Consequently his patients (whom he always cures) cannot complain of their medicines. Dr. Meltzer says:

"I have had many typhoid fever patients and have never lost one. A number of these were treated by drug physicians before they came to me and had been given up to die. Nevertheless I succeeded in curing them. The treatment that I administered was as follows:

"First, and most important, I cool down the fever; the intense heat must be reduced. I give, as needed, three or four baths every twenty-four hours, these varying according to the age and condition of the patient. The temperature of the bath should be 18 to 20 degrees R, or about 72 to 77 degrees F., and the patient is frequently sponged and rubbed with cool, tepid water. I also apply cool or cold compresses (body wrapping) over the liver and spleen, on the head or wherever the heat is intense, allowing the patient plenty of cold water to drink. Injections cool or cold are given from the start. I let the patient sleep all he can, his bed being by an open window.

"When the fever runs high and the patient's strength good, I administer the full wet sheet pack. If he feels comfortable in it, the treatment is all right. But if he becomes nervous or restless the wrappings must be removed and the skin rubbed with a towel. The feelings of the patient will decide as to the use of the pack. I likewise employ the half bath, rubbing the feet, legs, and back while the patient is in it. This should be continued until the surface heat is lowered.

"Whether it is typhoid or some other fever, it is of little consequence so far as the treatment is concerned. It is sickness or disease that we are treating and the name of the fever is immaterial. For patients that are very weak I give the pouring bath. using water that is quite cold, sometimes 8 degs. R.—about 50 degs. F. The water is poured over the head and shoulders, provided the patient can stand it; otherwise omit the head and simply pour it over the upper part of the body.

"By my treatment the patient is not only made comfortable, but he recovers rapidly. When he gets hungry, I give him fruit to eat, apple sauce, brown bread and milk, oatmeal and milk, &c."

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FORECASTING THE SEX.

The question of determination of sex before birth has excited the interest and curiosity of mankind from time immemorial.

From time to time most crude theories have been advanced, but we appear to be no nearer the true solution now than we were in the time of Aristotle. Many observers believe that when the first birth happens to coincide with the period of highest sexual energy in the mother, a girl is more likely to be born than a boy; but if the mother is very young, or has already passed the time of sexual maturity, the child will probably be a boy.

Others again hold that the sex is dependent upon the age of the ovum at the time it is fertilized, so that an egg that is fecundated shortly after its escape from the ovary becomes a female, and one that has passed for some distance along the fallopian tube before it meets the spermatozoa becomes a male. This theory has been found to be fairly accurate with cows, but it does not hold good for all animals.

Many observers believe that the condition of the semen exercises an influence upon the sex of the ovum; for instance, where frogs eggs were fertilized with concentrated sperm, males were hatched in 40 per cent.; when diluted sperm was used only 27 per cent. of the eggs produced males.

Other theories too numerous to mention have, from time to time, been advanced: from the point of view of polygamy; the relative ages of the parents; of the state of their nutrition at the time of conception; of the time of the year at which conception takes place, etc., etc.

The theory though that has lately excited an undue amount of interest, not only in the medical but also the lay press, is that the nutrition of the parents influences the sex of the offspring as advanced by Dr. Schenck of Vienna. Landois experimented in this direction as early as 1867, using a certain caterpillar, and in thousands of cases he was able to produce male or female butterflies at will, and the effect of feeding upon bees has long been known.

Although so lately dished up this is no new theory. In one of Shakspeare's plays Sir John Falstaff says to Prince John of Lancaster: "There's never any of these demure boys come to any proof, for thin drink doth so overcool their blood, and making many fish meals, that they fall into a kind of male green sickness, and then, when they marry, they get wenches."

The subject is a very interesting one, but I fear we are as far from the correct solution as ever.

THE DIAGNOSIS.

The first thing that enters the mind of every conscientious and pains-taking physician when he examines a patient is, What is the Matter? The first question that presents itself after a visit to any one sick by those that are anxious or concerned, What disease has the Patient? And, Will he get well?

It would hardly appear consistent if the doctor said he did not know what ailed him, but did say he would recover.

The study of diseases in the text-books appears easy and to watch a skillful diagnostician examine a case before the class in one of the large hospitals, it looks like it was a very simple task to perform. With the manner in which he proceeds to interrogate his patient and the way he elicits answers to questions. The methodical way in which he proceeds to examine the different organs of the body, then by elimination he disposes of a number of diseases and arrives at a conclusion that the patient suffers from a certain complaint with perhaps some complications.

To the young M.D. it looks liks it would be no difficult task to perform, but this man with years of experience has examined thousands of patients. He has met many cases that have driven him to study and he has spent the best part of his life in becoming familiar with the different diseases that the human flesh is heir to. Not only the different diseases but the different phases which the same disease may assume in different individuals.

The young physician, who wishes to become proficient in diagnosis must study his cases well, He must not be satisfied from reading one book and then laying it aside and concluding that he knows all that can be learned. It is the physician who makes the thorough examination of his patient and uniformly gives a clear diagnosis that makes

a reputation and sustains it. It matters not how long he may investigate, it makes no difference how tedious he may be before he concludes to give an opinion as to the nature of the complaint, if he can give the right diagnosis and clear reasons why.

The physician who continues to read after he has left the college that conferred upon him the right to practice medicine, and is never satisfied until he has made clear to his mind the nature of the complaint that effects the patient, the physicians of this class are the doctors that give to the medical profession the dignity it sustains and bless every community in which they reside, drive pestilence from our land and protects its citizens from contagious diseases.

THE WISDOM OF ENACTING A LAW PREVENTING PHYSICIANS FROM RESORTING TO ADVERTISING IN THE NEWSPAPERS.

It is of frequent occurrence to see in the columns of our local newspapers the announcement of some travelling doctor who proclaims to the citizens of the community his ability to diagnose any disease in five minutes without asking a question of the patient. Can cure nearly all diseases. He hails from a large city and also is a member of a medical institute, etc. His picture is at the head of the column. People leave the family physician and repair to the hotel to see the big doctor and an interview is had, the price is agreed upon, the cash paid down, or a bankable note is given. Medicine is sent C. O. D. which must be paid for before it can be had. The deluded patient takes his medicine for awhile only to find out that he has been robbed of his money and received no benefit in return. He was induced to visit this travelling confidence man for the reason that he read in his home paper such flattering reports of the marvelous cures he had performed, which seemed to him good evidence of the ability of the doctor.

We interview the manager of this paper. He plainly says it is the money he obtains from such characters and has no other reason to offer for giving the doctor such a write-up in the columns of his paper, and would be free to admit that he has but little confidence in the ability of such men. A stranger traveiling across a broad prairie in one of our great northwestern States, a blizzard was blowing a gale of sixty miles an hour, he was lost. He met a young man who told him the wrong way. The man went wrong and was lost in the storm and was found dead two or three days later. The man who directed him possessed a bad heart. He did it from pure deviltry. There was no incentive other than that possessed by a man whose innate nature was to injure his fellow man.

Now we ask the question, the man in the first instance sends his neighbor the wrong way for a few pieces of silver. He betrays him into the hands of a confidence man who takes his hard earned money and leaves him in perhaps a worse condition than he found him, or may have kept him so long that his case is hopeless and abandons him to his fate.

Legislatures neglect to make laws to protect the afflicted, while Congress enacts a law to prevent people from the trickery of lotteries. It seems to us to be a step in the right direction that physicians who resort to advertising in the public newspapers and by hand-bills should be prosecuted and summarily punished and the publishers of newspapers similarly dealt with.

THE CRITICAL TIME IN TYPHOID.

We think at once of the dry, cracked tongue, temperature 105, pulse 128, along about the 14th day, but the critical time we want to speak of is not then. It is when the morning temperature is about normal, and 100½ in the evening, when the tongue is clean or rapidldy cleaning, the patient simply a skeleton with a little skin on and an appetite fit for a barbecue. The management of the appetite is the condition, the man could eat old rubbers if they were warmed over and begs constantly for something to eat, his mother, the nurse, his aunt, the neighbors or a friend just dropping in for a word. And it is at this critical time that the aunt or the grand-mother tells about a man she knew dying almost from typhoid, who ate a meal of green corn roasted on the cob and he began to improve from that hour, or how Mr. Brown's son Jim was so low down with the dysentery and the doctor said he must not eat any thing but soup and how he grabbed four big tomatoes and swallowed them while no one was looking and from that moment began to get well. This is the trying time for the doctor and the critical time for the patient, for to yield means a relapse and perhaps a funeral. The writer knows from personal experience what the appetite of convalescent typhoid is; it starts way down in the toes and gradually comes up the legs gaining strength as it comes, the two streams of want and hunger flowing together at the umbilicus, it spreads in one consuming flood to the head and mouth and hands, overflowing all reason and judge-

ment and will, and you would give the world for a basket full of cold biscuits and a small pot of boiled cabbage. In the hospital, of course, the patient gets what the doctors order, but in private practice he gets usually what he wants unless the doctor is very firm. Every case of typhoid you treat get the feeding entirely in your hands, put nourishment down with your directions for medicines. specify kind, amount, and time of giving; you can usually do this easily during the height of the disease and do not take food off the list of medicines until the patient is able to sit around the house. It means a lot of trouble and thought, but it is safety. We would not think of saying, "Give him a little nitrate of silver every four hours," but we say, "give a little buttermilk every three hours," say exactly how much milk, how many eggs, how much soup and what must not be in it. The constant clashing with the old ladies of the neighborhood could be avoided if we would exercise absolute control over what goes into the patient and when.

But the appetite is still there; yes, but feeding can be more liberal under the careful additions of the physician than when left entirely to the whim of the patient and the susceptibility of the nurse. Give plenty of water, so much, so often and it will take the edge off the cutting want, as well as do many other things in the way of elimination and filling in the hollows. We are mostly water anyway. The fluid part of the body in the Germans is said to be beer, but we do not vouch for the scientific accuracy of this statement. In treating typhoid fever we must think, no matter if it gives you headache, about the little things.

THE LANCET.

Nothing played a more important role in the therapeutics of a few decades ago than the lancet. No doubt it was often abused, but that it was capable of doing wonderful things in many acute diseases, especially in such cases as were of plethoric habits admits of no doubt. Well does the author remember lying all day, many years ago, scorched with fever, and moaning with headache so serious as to be almost unbearable. Early in the night the old doctor came. He was one of those princely men of the old school of whom the world was not worthy. Boy as I was, I had made the prescription for him. I believed a bleeding would relieve my throbbing brow, and so asked him to bleed me.

Though constitutionally timid, and afraid of being hurt, I handed out my arm, and looked on at the flowing current. As the arterial tension began to lessen under the flow of the vital fluid, relief came like it had resulted from magic or miracle. I began to sweat, and soon my fever was gone, and I was soon restored to health, of course, it goes without saying, that in blood-letting abides all its old time potency, and in such cases it can not be well substituted. A man who is sure of his footing can secure its prompt and beneficent effects. Its application to practice draws upon the same faculties of discretion and judgment as does the application of remedial agents in general, and no where more than in medicine is a finer field offered for the play of every attribute of the mind. Practically the lancet seems, however, relegated to desuetude except in puerperal convulsions, and the purpose of these lines is to emphasize the incomparable value of this measure in these cases.

All modern authors mention the lancet as a resource in these frightful, distressing and dangerous cases, but do not accord it that prominence its value demands for it. It has been the writer's fortune to have met some fifteen such cases in practice—a number of them in consultation practice. Of the consultation cases, one had gone on in convulsions and insensibility for twenty hours, when upon arrival, the woman for the first time was bled. She had had the usual remedies du ing these long hours. She had not a single other convulsion. The writer in all cases of this class bleeds freely as soon as possible, and in consequence, in not one instance has he, in his whole professional career, seen a case have more than a single fit after bleeding had been thoroughly done. Other treatment is not neglected. A full dose of calomel is generally given. Chloral, bromide, and morphine are given according to indications. Chloroform anesthesia is resorted to to combat convulsions till other measures come to the rescue.

Nothing can ever, in all probability, supplant the lancet in this dreadful condition. Certainly no great delay should precede its use in these cases when other things are not immediately successful in affording relief.

No physician should go into the lying-in chamber without being prepared to bleed if necessary on account of actual or threatened convulsions.

A PLEA.

I would urge that some means be adopted to teach the youth of this country, especially the boys, the horrors of infection with venereal diseases. How few of our boys realize the sufferings which are to fol-

low an infection of gonorrhœa or syphilis and how many of them will suffer in later life from such infection neglected. The young boy with moral sensibilities blunted or undeveloped, beginning to learn his sexual abilities, having all the passionate desires of that age, who is solicited, or with malice aforethought seeks the embraces of a female suffering from gonorrhœa or syphilis, is truly and sincerely to be pitied. He is absolutely blind to and ignorant of the hell he is plunging himself into for his remaining earthly career. The medical profession see too often the sufferings of those so afflicted, not only in the individual himself, who first contracted the disease, but innocent wives and children of such. I believe that much can be done to relieve this condition, not by licensing houses of prostitution nor by subjecting the prostitutes to ocular examinations and the issuing of certificates thereto by physicians, but by educating the young man, the boy, to a full understanding of a life, every moment of which may be one of suffering, from the various phases of one or the other of these diseases, as a result of one-half hour of so-called pleasure. Teach them the price they have to pay. Throw away all false modesty. Talk to them plainly. Picture to them in the most forcible language at your command the horrors of it. The father and the physician should teach it. The minister and teacher should be very willing assistants. It should be taught in our colleges. Teach it all the time during adolescence. This I believe to be the surest way of lessening the number of cases suffering from venereal infection.

THE TRUE VALUE OF GARGLING.

There is probably no more routine practice than the prescribing of gargles, and yet if the patient is not instructed *how* to gargle, the treatment accomplishes but little if anything. By gargling in the usual way only the upper anterior surface of the uvula and soft palate and base of the tongue are reached. This is quite the rule, in fact I have experimented with a number of cases and have never yet found one where the gargle extended further back. The method of holding the nose and throwing the head well back when gargling enables the gargle to reach every surface of the pharynx very effectively; thus we can have in gargling a very effective treatment if we but instruct our patient *how* to gargle.

The value of the two methods can very readily be tested by painting the posterior wall of the pharynx carefully with a strong solution of methylene blue, then have the patient gargle with water in the usual way, when it is ejected, it will be perfectly clear and unstained; then let him gargle again by the method I suggeet, that of holding the nose and throwing the head well back, and the ejected fluid will be found stained and an inspection of the pharynx show that the blue has been washed away.

THE NEW OFFICERS OF THE AMERICAN MEDICAL ASSOCIATION.

There was some shaking up among the officers at Columbus.

For some time past there has been some feeling about the secretaryship and a heated discussion was the order of the day at every meeting when the matter was reached. Dr. Mathews strongly recommended in his address that the Editor of the Journal be also made Secretary of the Association, and that this action on the part of the nominating committee would prevent any squabble over the matter. This part of the President's Address was adopted, and Dr. George H. Simmons, of Chicago, was elected Secretary, succeeding Dr. Atkinson, of Philadelphia, who for thirty-five years has held this office. We believe the change will be of benefit to the Association, not that Dr. Atkinson has not been able and faithful in the discharge of his duties, for he has, but because we feel sure that thirty-five years is too long for one man to hold the office of Secretary in any Society. The doctrine of rotation in office is a good one, a new broom sweeps clean, so get a new broom every now and then, as the best managed society in the world needs a little dusting up occasionally. If Dr. Simmons proves to be as good a secretary as he is an editor, things will get a little brushing up that will do them good. The President, Dr. Keen, of Philadelphia, is a man so well and favorably known that it is useless to say anything about him. Being the first surgeon in the land, there is something very fitting in his election as President of the chief Medical Association in the world.

The session of 1900 will be held at Atlantic City, N. J., and every one will enjoy being at this popular sea-side resort when the season is at its height.

ANOTHER JOURNAL TO THE FOOT LIGHTS.

Bulletin of the Cleveland General Hospital is the name of a new quarterly journal to be published in Cleveland, Ohio, edited under the auspices of the staff of the Cleveland General Hospital, by Charles J. Aldrich, M. D.

As we have said before, such journals do not amount to much to the general practi-

tioner as they lack the vital force which would put them in touch with the active physician; however, this first number of the "Bulletin" is certainly lovely in form and beautiful in face, the general "get up" of the magazine being good. The opening article on "Laporatomy for Tubercular Peritonitis," by Dr. Crile, is well written and the subject is thoroughly gone into, the statistics being well brought out.

Dr. Baker's report of a case of Sarcoma of the Choroid, illustrates the value of early diagnosis, or if uncertain, detachment being present, enucleate.

The Bulletin does well for the first time, and we join in the encore.

KEEP THE BABY COMFORTABLE.

Don't fail during the "Dog Days" that are hard-by to make close personal investigation of surroundings in your professional rounds among the little patients who are victims of not only the Tropical Heat of Summer, but also of the misdirected sympathy of Nurse and Neighbor. Babies are of flesh and blood,and do not differ materially from older people in organization and requirements, but how many of the laity, and unfortunately not a few physicians seem to regard them as possessing natures diverse from adults of the Genus Homo. How often we are pained to find in our rounds these hot days the sick babe swathed in flannels of heaviest grade, and its mother sitting by complacently robed in Mother Hubbard wrapper, the father in cotton pants and lawn shirt, and some older urchins in yard and lawn Sans Culotes suggesting by their nudity the necessity of Fig leaves or something. Ought not the physician, ere he prescribed the cooling potion, and adjusts Chalk Mixture and Blue Powder to the Diarrhœa and vomiting, require the mother to pull off this ally of death, and give the sufferer at least this much relief and comfort. Will not the profession wake up to the fact that flannel on babies digs many little graves each Summer and ought, except briefly during exceptionally cool spells, be discarded as a dressing during the hot season. Then too, the portly mother with fan of Palm will cool her comely self between open doors, and hide her fretful, overclothed, and fexerish offspring behind the door, or in secluded corner of room, or nestle him close and snug in a box cradle secure from suspicion of breath or breeze. Pull out the tiny helpless and mute nestlings hid away in nook or corner to the coolest, breeziest place in the house, and let him enjoy in common the best thing going at this time, that is, air in motion. Sick babies in summer are nearly all the subjects of exalted temperature and that means that there is more than natural loss, or radiation of water, and a consequent demand for water urgently expressed in thirst. The little sufferer tosses its body, extends its limbs, gives longing and appealing look,a too often vain expression for water. If the case be one of Gastro-Intestinal Catarrh, vomiting is likely to be a concomitant symptom, and as soon as the water is taken, it is rejected by the stomach.

This by parents, and too often by physicians, is interfered as a contra-indication for water. Here hinges the fate of many a baby. If right counsels prevail, and other necessary things are done to relieve the situation, the case will soon be better, but if all else is done, and the desideratum, water, is withheld all will be in vain. In order to illustrate, the writer was called one August day early, last year, to see twin boys of eighteen months old. A press of professional business made it impossible for me to see them till late in the evening. It was Sunday, and many relatives and neighbors came in to see the sick babies. Upon my arrival, I was urged to give something to quiet them, as neither had slept at all during the day, and homefolks and visitors had exhausted themselves in nursing the fretful pair through the long drawn day. The question was at once asked, have you given them plenty of water? No, the doctor said "to give them but little water, that it would be thrown up, and would make the bowels worse." At once a bucket of water was ordered fresh from the well, and taking the dipper dripping full, I gave it to the noisiest one. He clutched the dipper with both his tiny hands, and did not release his grasp until the last drop had passed his parched lips. I then handed another dipperful, half of which sufficed for his thirst. I then turned my attention to the other boy who slaked eagerly his thirst with a like amount of water. Before we had finished tanking up the second fellow, the first had fallen to sleep, and simultaneously began to sweat freely, and soon the other, strange to relate, fell asleep, and beads of sweat fell upon his fevered brow. Taking my text from these circumstances, I preached the salvation of water and air. Some Calomel and Listerine, and Paregoric relieved the symptoms. The boys both got well. The doctor got his fee and the lasting thanks of the family.

Keep the babies comfortable, and you can probably keep them well, if however, they get sick, make them as comfortable as possible, and it will always materially aid in their restoration to health.

DEATH OF LAWSON TAIT.

The profession has lost one of its great men in the death of Lawson Tait. He was a man of genius, holding in his keeping many talents. He was a great man as he had bitter enemies, who watched his every movement. He was the leader of the opposition, in fact, he was the opposition itself, against formalism in aseptic surgery. There are those who believe that precautions against infection must only be taken in a certain way, so much soap and water, so much brush and towel, so much bichloride and carbolic, so much alcohol and ether. Lawson Tait's one aim was cleanliness, chiefly mechanical, but he would as lief wash off the germs as to kill them in situ, and success was chief attendant to his operations. However grave his heresy, he made Birmingham the chief city in the world for abdominal surgery, and no man may question the greatness of his work.

He was born in Edinburgh in 1844, and was fifty-five years old at the time of his death.

THE AMERICAN MEDICAL QUARTERLY.

Another county heard from. The first number of this new medical journal has been received and our brother certainly sets his stakes high. The original matter is by such men as Mathews, of Louisville; Hare, of Philadelphia; Mann, of Buffalo; Reed, of Cincinnati; Lawson Tait, Nancrede, of Ann Arbor, and the general get-up of the magazine is in keeping with such matter. Colored plates and illustrations are used freely. The editor claims, with reason, that deliberation and painstaking study are essential for thorough information and precision in knowledge, and the Journal will be issued only once in three months.

"Thumb-nail sketches," of well known physicians is a most readable department. We see nothing to be ashamed of in this issue, and yet the editor does not show his head once. We hope next time to meet him on one page or another, anyway we extend our congratulations.

ALWAYS SEARCH WELL FOR THE CAUSE OF A COUGH.

There are frequently cases of chronic cough which have resisted all the usual remedies at the hands of the physician, and which he in desperation practically gives up when he advises the patient to change climate or take a long sea voyage, when, if greater care were taken in searching for the cause by the process of exclusion, he would cure his patient and not saddle upon him the injustice of either breaking up his home, or detaining him from his business for a long period of time. We must not forget that the relaxed or elongated uvula is a frequent cause. That stringy, tenacious mucus hanging from adenoids in the nasopharynx is a great cause in children. Not infrequently foreign bodies in the external meatus are responsible; this reflex cough is readily demonstrated by passing a probe along the floor of the meatus, which will, as a rule, cause a tickling in the throat. An otitis media discharging pus through the eustachian tube into the pharynx is not to be lost sight of. Hypertrophy of the lymphoid tissue at the base of the tongue constituting the lingual tonsil when it presses upon the side of the epiglottis or the anterior pillar of the pharynx is a cause of cough not often thought of.

AMITY AMONG PHYSICIANS.

There is nothing more pleasant than to observe the existence of friendship among neighboring physicians. But unfortunately the contrary is too frequently witnessed.

It is a common thing in small towns, where two or more medical men are located, that they are not on speaking terms with each other. This condition of things is not only detrimental to the interest of the doctors, but also to the community. The people will take sides, and do a great deal of talking, as well as the doctors. And should one have a patient who may need a consulting physician, he not being friendly with his neighbor confreres, of course, will not consult with them, it becomes necessary to send some distance for a consultant. This, of course, involves the patient in a heavy expense.

It should be a rule among all medical men to cultivate kind and friendly feelings for each other, in so doing they will not only do honor to themselves, but stand much higher in the estimation of the community where they practice.

A PROMINENT SOUTHERN SCHOOL.

The medical department of the University of Nashville will open its forty-ninth annual session, Monday, October 3d, 1899, to continue six months. The school has greatly increased its facilities for instruction and is now among the first-class medical colleges in the country. A four years graded course is required for the Degree of Doctor of Medicine. College graduates are admitted to advanced standing. We are glad to see the colleges lining up for the higher education of the physician.

HYDROLEINE---HYDRATED OIL.

To stop, in some way, the progressive emaciation and loss of energy is the main thing in the treatment of consumption and various other wasting diseases. Bad digestion and worse assimilation are the most prominent symptoms to be met in the treatment of all such diseases. Hydroleine is a pancreatized preparation of pure Norwegian cod liver oil (Lofoten) prepared as the direct result of a long series of physiological experiments conducted with a view of gaining an exact knowledge of the digestion and assimilation of fats in the body. These experiments were made by the London chemist, H. C. Bartlett, Ph. D., F. C. S., in conjunction with Dr. G. Overend Drewry, M. R. C. S., and they were sanctioned and encouraged with many practical suggestions by Bence Jones and Baron Liebig. These experiments fully established the fact that fats are taken into the system as fats, but in order that the lacteals may take up the fatty matter, the globules must be subdivided and split up until they are exceedingly small. In health when all the secretions are good, this work of properly preparing the fats for asimilation is done by the pancreatic juice in the intestines, but in disease, especially in consumption, the ferment principle of the pancratic juices is lacking and without this principle, no solution of fats can be made, without exposing to a high temperature, which decomposes the mixture setting free the fatty acids. According to Dr. Drewry's experiments on dogs it was shown conclusively that it is possible to produce a true solution of oil in water. In every experiment the oil was found in the deodenum in a true solution—that is capable of being taken up both by water and alcohol without producing the milky appearance characteristic of an emulsion.

Further experiments were carried out to produce, if possible, a mixture which would comply with all these conditions. It was found that the addition of alkalies would convert the oil into soap only with prolonged boiling and high temperature, as we all know, and that outside of the body the pure oil was absolutely insoluble in water. The solution and soponification which occurs in the body is entirely different from that which occurs outside, as in the body it is due to the action of the pancreatic and intestinal juices together with the bile on the fat and this occurs at a temperature not exceeding 100 deg. Fahrenheit against 212 deg. outside. It was also shown that exactly this degree of solution and emulsion of the oil or fats can only be produced inside the body and can be produced there only when the secretions are normal or nearly so. That "if the glands of the body, through disease or atrophy, do not furnish these ferments in sufficient quantity, the mixture remains unchanged and passing through the bowels in that condition cannot be assimilated."

By making first a fermentative emulsion and then adding in proper amounts the active principles of the pancreatic secretion, it was possible to make an artificial, partially digested oil, and this oil when introduced into the digestive apparatus would not only be fully digested itself but would also complete the digestion of other fatty foods. Like a particle of yeast in a mess of dough the digestion spreads until the entire meal is consumed and appropriated. Like produces like in all the processes of life, the fact that all the fatty matter in one meal is perfectly digested, is a sure indication that the next meal will be easier to digest, the fatty matter properly assimilated of one meal furnishes material for the production of ferments which make the perfect digestion of fats possible.

We are reminded again and again of the truthfulness of the observation, that it is not what we eat that makes us fat but what we assimilate. We often see people who are very fond of fatty articles of food and eat plenty, yet they are thin and weakly. The matter is simply that they are not properly digesting what they eat, and that the bulk of the fatty matter passes through the bowels unchanged. The forms of fatty diarrhœa which at times are so bad to treat successfully, are due to undigested food, and the trouble is that we can not get our patient to the point where he can properly digest one meal, if we could then all the others might be corrected and the man restored to health. It is the first drink that makes the drunkard, so the first digested meal means returning health.

Dr. Drewry draws these conclusions from his experiments:

1. In Consumption, and other diseases, there does not exist in the patient the power of dissolving a sufficsent proportion of fat or oil, and in this manner all the fatty tissues, and the nervous system are starved.

2. When the oil or fat has been dissolved in water, it is thrown down and fixed again as fat in the fatty tissues, on being brought into contact with various salts, and, particularly as regards the nervous structures, with phosphatic salts.

3. The fat maintained or produced in the body, when this process of solution is properly performed, is not due entirely to this cause, except that by this process alone can

the nerves be nourished through the medium of which all the other processes of life are carried on.

4. In cases where there is not power to transform the fats of ordinary food, from deficiency of secretion, either pancreatic or biliary, there is an advantage to be obtained from the use of Cod Liver Oil or the Pancreatic Emulsion of Cod Liver Oil; the one some times assisting the biliary secretion, tha other aiding the defective secretion of tha pancreas.

5. In cases where there is great em aciation, if oils prepared so as to secure solution, emulsion, and saponification are given regularly with food, increase of weight will be obtained.

Cases of Consumption that are gaining in weight, are getting better, and we may use no other examination, put the patient in the scales once every week and keep a record, you can tell exactly how your case is getting along. Some of us think, perhaps, that emaciation is a late manifestation of the disease process but it is often with the beginning, always in at the death, we should therefore begin our supportive treatment in ample time, don't suppose that Cod Liver Oil is only fit for the thin and weakly, it is most fit for those who are stout and strong, but who are in danger of becoming weak and thin. The first treatment of beginning consumption is too often directed solely against the enemy in the lung, we should at the same time begin the erection of breastworks and fortifications in the digestive organs, for here it is that a great part of the real battle for the man's life will be fought. Like a wise general, we should anticipate the moves of the enemy whenever possible, and we must never put off a careful examination and treatment of the digestive organs in consumptives, no matter whether there are visible indications or not.

The formula of *Hydroleine* is well known and it is based upon sound scientific principles. It does not disagree with the stomach, which is the great trouble with ordinary Cod Liver Oil. Hydroleine is easily digested and assimilated without producing eructations. It is entirely devoid of the unpleasant taste of the pure oil and frequently noticed in the ordinary emulsions, being thoroughly palatable and pleasant, it can be taken by the most delicate. The manufacturers propose to introduce it solely upon its merit, and the profession is only appealed to through the medical Press. Hydroleine is even now prescribed by thousands of the leading physicians throughout the United States.

BOOK REVIEWS.

Annual and Analytical Cyclopædia of Practical Medicine. By Charles E. de M. Sajous, M.D., and One Hundred Associate Editors, Assisted by Corresponding Editors, Collaborators, and Correspondents. Illustrated with Chromo-Lithographs, Engravings, and Maps. Volume III. Philadelphia, New York, and Chicago: The F. A. Davis Company, Publishers, 1899.

The third volume of this monumental work is now before us. It extends from "Dislocations" to "Infantile Myxœdema" inclusive, and the plan of the work adopted, as was anticipated and expected, meets the wants of the general practitioner, giving him a thoroughly up-to-date text book, and the cream of the most recent contributions to professional literature. There will be found in this volume many valuable and noteworthy articles. The first section in the book occupies 26 pages on Dislocations and is from the pens of those well-known and honored Professors Lewis A. Stimson, Edward L. Kyles, Jr. Their description of dislocations are clearly put forth in their usual free and lasy style. Several very nice illustrations are given under this section which are useful and instructive to a better comprehension of the subject matter.

The subject coming next is upon "Dysentery" from that able writer Simon Flexner, lately of Baltimore, but now the recently-elected incumbent of the Chair of Pathology in the University of Pennsylvania. There is probably no one more capable or efficient to write upon this subject than Prof. Flexner. In this disease a great deal of new material has been introduced which is very clearly set forth in this article. A most complete article on "Dysmenorrhœa" is the title of the next article from the pen of Andrew H. Currier, of New York. The writer says a judicious combination of both medical and surgical means will often prove efficacious in the way of treatment. Yet he is inclined to favor the surgical treatment as the most satisfactory. We would likewise call special attention to the excellent exposition of the important subject of "Eclampsia" by Egbert H. Grandin, of New York. Dr. Grandin is a fluent and graceful writer and his article is a very valuable contribution to medical literature. The articles following this in order are as follows: Eczemer, by Henry W. Stelwagon, of Philadelphia; Elephantiasis, by J. Abott Cantrell, of Philadelphia; Very complete chapters on Empyema, Encephalitis and Endometritis.

The subject of Epilepsy is very ably described by Dr. William Pritchard, of New

York. It is a contribution which will be welcomed by all who are responsible for the management of this disease, and who are desirous of being informed of any new researches which may throw light upon the nature and origin of the affection, and above all, which may add any suggestions regarding its treatment. The article on Erysipelas is a very valuable contribution by Ernest Laplace, written in his luminous style. All that is new and recent concerning "Exophtholmic Goitre" is very clearly reviewed by James J. Putnam, of Boston, and is one of the most readable and meritorious contributions in this volume. The subject of "Fractures" by Stimson and Keys is is within itself well worth the price of the book. The paper upon "Goitre" by J. Geo. Adami, of Montreal, is a master piece in miniature and sets forth the subject according to most recent investigations. The Diseases of the External Ear, Therapy of Formaldehyde in Disorders of the Respiratory Tract and the Uses of Hydrogen Doxide may be found of special interest to otolaryngologic readers. There are other papers deserving praise. "Hernia," by William B. Coley, of New York; "Hipjoint Disease," by Reginald H. Sayre, of New York; "Hypnotism," by J. T. Eskridge, of Denver; and "Hysteria," by the same authors. The description of "Infantile Myxœdema," by Osler and Morton, leaves nothing to be desired for the purposes of this work. It is clear that the members of Dr. J. Sajous' staff continue in their devotion to the undertaking in a degree seldom exemplified in so large and comprehensive a literary work. This cyclopedia we unhesitatingly say is one of the most indispensable of medical reference books.

An Epitome of the History of Medicine. By Roswell Park, A. M., M. D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a Course of Lectures Delivered in the University of Buffalo. Second Edition. Illustrated with Portraits and other Engravings. 6¼x9¼ inches. Pages xiv-470. Extra Cloth, $2.00 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St. Philadelphia.

This is the second edition of this work within a year's time, which not only must naturally be a great source of satisfaction to the author, and the interest manifested by the profession at large. The history of medicine has been sadly neglected in our medical schools. The valuable and fruitful lessons which it tells of what not to do have been completely disregarded, and in consequence the same gross errors have been over and over repeated. The following pages bring together the most important facts and events comprised within such history into the compass of a medical curriculum, and at the same time popularizes the subject. In reading the work we notice how nicely the author indicates the relationship which has ever existed between medicine, philosophy, natural science, theology, and even belles-letters. The author states that medicine is really a history of human error and of human suffering. During the two thousand years it is hard to say which has prevailed. The writer thinks that the frowning and foreboding attitude of the church figured most prominently as a cause which conspired to prevent the more rapid development of our art. In Chapter I. we find given an interesting account of the origin of medicine, medicine among the Egyptians, among the Orientals and the Greeks. Also under this chapter is given a biographical sketch of Aesculapius, Pythogoras, Hippocrates, and Aristotle.

Chapter II. opens with the anatomic period. Under this is considered the Alexdria School with a sketch of Herophilus, Celsus and Galen with his theories and influence. Chapter III. is called the Age of Transition. The principal topic here discussed is the influence of the School of Salernum. The work is an interesting story of reality from the early dawn of medicine to the present time. It gives the barbaric methods of treatment, the inhuman methods of operative surgery, with illustration, very vivid, of the cruelties human beings had to undergo. Near the close of this will be found an interesting chapter on the French Surgeons of the XIX Century; a little further on is given the names with protrait and sketch of notable American practitioners. Among the more noted are those of Geo. B. Wood, M. D., Robley Dunglison, M. D., Austin Flint, John Roy, &c. The work is completely filled with valuable and interesting historical information. It should be read and studied by every physician. It is handsomely gotten out by the F. A. Davis Co., and the price is very reasonable.

A Text-Book of Anatomy. By American Authors. Edited by Frederic H. Gerrish, M. D., Professor of Anatomy in the Medical School of Maine at Bowdoin College. In one magnificent imperial octavo volume 915 pages with 950 engravings in black and colors. Cloth, $6.50, net: full leather, $7.50, net. Lea Brothers & Co., Publishers. Philadelphia and New York.

This new Text-Book of Anatomy should stimulate the study and review of this important branch of medicine among regular

practitioners. Some of us think perhaps that we are through with Anatomy, thank goodness, when we pass our last examination but really we are not until we have treated our last case; and we know it but lack the energy. Dr. Gerrish, his helpers, and the publishers have succeeded in getting out a book which makes the subject attractive by its presentation. One secret of this phenomenal success is the fact that the contributors are all teachers of this particular branch. Dr. Bevan is Professor of Anatomy in Rush Medical College, Dr. Gerrish in the Medical School of Maine, Dr, Keiller in the University of Texas, Dr. McMurrich in the Univerity of Michigan, Dr. Stewart in the University—Bellevue Hospital Medical College, Dr. Woolsey in the Cornell University Medical College. It is the business of these men to teach Anatomy and it is manifested in every page of this book how well they do their work. The diagram and illustrations are used profusely throughout the work, and one might learn much by simply looking through once every day. There are 950 illustrations, among them quite a number of Testut's famous engravings. The illustrations under "Plane Sections," "Surface Anatomy," and "Normal Skiagraphs" are most excellent.

To the student this book will be most invaluable, displacing both his compend and bulky anatomy with something better than either.

The flexible water-proof binding adds much to the durability of the book in the hands of the average student. The chapter on "Practical Anatomy" tells of things that every student should know as he goes into the dissecting room.

Dr. Gerrish is to be congratulated on this magnificent work and the Publishers for the way in which it is completed.

The Medical Complications, Accidents and Sequelæ of Typhoid or Enteric Fever. By Hobart Amory Hare, M. D., B. Sc., with a special chapter on the Mental Disturbances following Typhoid Fever. By F. X. Dercum, M. D. Lea Brothers & Co., Philadelphia and New York. 1899.

There is no subject in the domain of medical science that is of more inportance than typhoid fever. There is no disease more wide spread and none more dreaded. Particularly is this true in our South-land. This work certainly comes to us in an appropriate and opportune time, just at the time when typhoid fever sets in. The writer has chosen a most important subject for there is no disease more treacherous than the one now under discussion. No two cases are alike. The writer has very conveniently divided his essay into seven chapters. The I. being devoted to General Considerations. Under this section is given various statistics showing the mortality in a great number of cases for many years. The author makes the statement that the mortality on the whole is less than it was several years ago. In chapter II. is discussed the varieties of onset of typhoid fever, the variations of the temperature, the chills, respiratory conditions in onset, symptoms of onset in the kidneys, in the alimentary tract, in the nervous system, and in the skin. Probably the most important, as well as the most interesting, chapter is the one devoted to the *temperature* in a well developed stage. Under this chapter, No. III. is discussed very freely the changes which the spleen, the genito-urinary tract, the alimentary tract undergo. The writer's remarks on the hemorrhage complications are timely and good. Lack of rest at any stage of the malady certainly predisposes the patient to this accident. An equally valuable and instructive chapter is the one devoted to Complications during Convalescence. There is no time in the disease when greater care and discretion should be exercised than during convalescence.

The chapter on Mental Complications is very valuable. The author states that mental complications occur by preference in patients in whom there is a neurotic heredity, or who have been subjected, previous to infection, to over-work, loss of sleep, anxiety, or other exhausting nervous strain. He gives the different forms of mental complications, such as acute delirium, cerebral asthenia, insanity with systematized delusions resembling poranosis, true mania, &c. The work contains 286 pages, with a good index. No book should be more carefully read than the one before us. The more familiar we become with typhoid fever the more useful we are as physicians. The book is well printed and illustrated, and is nicely bound.

Ocular Therapeutics for Physicians and Students. By F. W. Max Ohlemann, M. D. Translated and Edited by Charles A. Oliver, A. M., M. D. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1899.

This work contains 270 pages and is strictly a work on the treatment medicinally of diseases of the eye. It has a very practical bearing, and is a work that will be highly appreciated by the medical profession.

The subject of massage is treated in the first chapter, thermic agents in chapter II., chemic agents in chapter III. Under this

chapter is given the methods of preparing instruments, for washing hands, eye waters, bandages, subconjunctival injections, &c. A short and interesting chapter on electricity, and a chapter on general treatment closes the first part of the book. Under the special part is given the treatment of the various diseases common to the eye, beginning with diseases of the lid and closes with diseases of the muscles and nerves. The book certainly fulfills the object for which it was written—strictly a book of treatment. It is a most excellent book on treatment of diseases of the eye, It is given in a plain, simple way, readily understood and easy to put in practice. The formulæ given are many and good. The book is well bound and neatly printed.

Electro-Hæmostasis in Operative Surgery. By Alexander J. C. Skene, M. D., L. L. D., Prof. of Gynecology in the Long Island College Hospital, Brooklyn, N. Y., Formerly Professor of Gynecology in the NewYork Post-Graduate School. Gynecologist to the Long Island College Hospital, President of the American Gynecological Society, 1887. Corresponding Member of the British, Boston and Detroit Gynecological Societies of the Royal Society of Medical and Natural Sciences of Brussels, of the Obstetrical and Gynecological Society of Paris, and of the Leipzig Obstetrical Society. Honorary Member of the Edinburgh Obstetrical Society, Fellow of the New York Academy of Medicine, Ex-President of the Medical Society of the County of Kings, Ex-President of the New York Obstetrical Society. 174 pages. 80 Illustrations. Two Colored Plates Cloth. D. Appleton & Co., N. Y., 1899.

Dr. Skene is well known as the author of "Medical Gynecology" and "A Treatise on the Diseases of Women," books which are in every library worth the name. "Electro-Hæmostasis" is intended to be read in connection with his "Diseases of Women," but is an entirely completed book in itself. The book contains all the new methods of operating, recent improvements in instruments and in the technique of operating, a book which will find favor with the thinking, reading, working members of the profession. The author shows in a convincing manner what a broad field electro-hæmostasis and the electro-cautery has, in ovariotomy, myomectomy and abdominal hysterectomy, in appendectomy, in pelvic abscess, in extirpation of the mammary and lymphatic glands, in hæmorrhoids, etc. The beautiful illustrations make the text as clear as noon-day. A most easy book to read and understand. The operation for appendicitis is so clearly set forth as to be really simple. Two chapters at the end of the volume are devoted to the latest in asepsis and antisepsis in surgery, something that we must all keep up with as the firing line is being constantly advanced. The press work, type and binding leaves nothing to be desired.

Materia Medica and Therapeutics. An Introduction to the Rational Treatment of Disease. By J. Mitchell Bruce, M. A., Aberd. M. D., Lond., Fellow of the Royal College of Physicians of London; Physician and Lecturer on Medicine, Charing Cross Hospital: Consulting Physician to the Hospital for Consumption, Brompton: Examiner in Medicine in the University, Cambridge; Formerly Examiner in Materia Medica in the University of London and in the Victoria University, etc. New Sixth Edition, 610 pages, 12 mos., bound in Red Limp Cloth. Lea Brothers & Co., Philadelphia and New York.

This is one of Lea Brothers & Co.'s "Students' Series of Manuals," a series of fifteen manuals by eminent teachers and examiners. Dr. Bruce's experience as an examiner is serving him well in the writing of a student's manual. For the practitioner who has hardly time to wade through a whole system this book will be useful in giving him the vital facts in regard to any particular drug. To the student who must shortly appear before some terrible Board, a careful study of this work will very sensibly affect his grade on Materia Medica and Therapeutics.

The Diseases of the Nervous System. A Text Book for Physicians and Students. By Dr. Ludwig Hirt, Professor at the University of Breslau, Translated with Permission of the Author by August Hoch, M. D., Formerly Assistant Physician to the Johns Hopkins Hospital, now to the McLean Hospital, Waverly, Mass.. Assisted by Frank R. Smith, A. M., (Cantab.) M. D., Instructor in Medicine in the Johns Hopkins University. With an Introtion by William Osler, M. D., F. R. C. P., F. R. S.. Professor of Medicine in the Johns Hopkins University, etc. With One Hundred and Eighty-one Illustrations. Cloth. 716 Pages. D. Appleton & Co., N. Y. 1899.

We have all floundered around with some vague nervous disease on our call list, perhaps feeling more like taking a ducking than to go to see, because we did not understand it and we could not get interested.

This standard work should fill a want completely for some fuller light on this subject. Dr. Hirt, of Breslau is a recognized authority, and the translators have been faithful to their task. In the introductory Dr. Osler has this to say: "Pursuing the *via media* in the important question of treat-

ment, neither displaying the pessimism, which too many maladies of the nervous system would seem to justify, nor an optimism so flagrant as to savor of quackery, Prof. Hirt is a safe guide in the highways and by-ways of neurotherapeutics."

The illustrations are good, being most helpful to the text and in very great part original. The text is clear and impressive, showing behind it all the man of wide experience who has learned in his daily work.

The general arrangement is "Diseases of the Brain and its Meninges, including those of the Cranial Nerves;" Diseases of the Spinal Cord;" "Diseases the General Nervous System." A work to be recommended strictly upon its merit.

The publishers print and bind and finish in their accustomed first-class manner.

A Manual of Surgical Treatment. By W. Watson Cheyne, M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London, Surgeon to King's College Hospital, etc., and F. F. Burghard, M.D. and M.S. (Lond.), F.R.C.S,, Teacher of Practical Surgery in King's College, London, Surgeon to King's College Hospital, etc. In six imperial octavo volumes, with illustrations. Volume 1, 285 pages, wich 66 illustrations. Cloth, $3.00, net. Lea Brothers & Co.. Philadelphia and New York. 1899.

We have all experienced the want of detailed information, especially as regards the after treatment of our cases and have only learned the best methods when several of our patients have slipped away to the great beyond. This Manual of Surgical Treatment promises to be of real value to the practical Surgeon. The Authors, Cheyne and Burghard of King's College, is of itself a sufficient guarantee of the excellent character of the work. This first volume commences at the classical beginning, Inflammation, Supperation, Ulceration, Gangrene, Anæsthetics, Wounds, Syphilis, Chancroid, Tuberculosis, Tumors. The chapter on Ulceration contains all that is practical on that subject, one of daily interest to the Surgeon; the chapter on Anæsthetics, by Dr. Silk, is well written, containing an impartial and well arranged list of agents and their proper indications. The several chapters on Wounds will repay a careful reading and thought thereon. The writers have succeeded in putting themselves in the place of one who has to treat a given case for the first time, and the way is made clear, plain, and orderly. The illustrations are well selected and distributed throughout the volume.

A real and very valuable addition to Surgical Literature will be found in this Manual, supplying in a concise way some very important points in the after treatment, things left out of many of the general works on Surgery.

The work is well printed and bound, the arrangement of the different type making it easy to find exactly what you are looking for

Hay Fever and its Successful Treatment. By W. C. Hollopeter, A. M., M. D., Clinical Professor of Pediatrics in the Medico-Chirurgical College of Philadelphia; Physician to the Methodist Episcopal Hospital; to St. Joseph's Hospital; Fellow of the American Academy of Medicine, etc., etc. Second Edition, Revised and Enlarged. 152 pages. Cloth, $1.00. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1899.

Dr. Hollopeter has a very complete book on Hay Fever, any one interested should by all means read it. The disease is taken up logically and in order, and in a clear and well arranged manner the author discusses the Causes, Symptoms, Pathology, Diagnosis, Prognosis, and most of all the Treatment. The writer has been very successful in the treatment of Hay Fever in his private practice, and it is out of this experience that he is enabled to speak with confidence.

The fact that a second edition was called for within a year, tells of its reception by the profession. The Bibliographic section is valuable and shows a great amount of work. Every physician may be called on sooner or later to treat this very intractable disease, and he should read this book and put it in his library for future reference.

A Treatise on Human Physiology for the use of Students and practitioners of Medicine. By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. New (2d) Edition thoroughly revised. In one handsome octavo volume of 921 pages, with 595 engravings. Cloth, $4.25, net, leather, $5.25, net,. Lea Brothers & Co., Philadelphia and New York.

Chapman's physiology is one of the best known and a standard text-book of the day. His efficiency as a teacher, as a writer, as an investigator, as a clinician have enabled him to furnish a comprehensive, clear and modern book, intelligible and readily grasped by the student, and especially valuable to the practitioner, because of its close bearing upon pathological as well as normal conditions. The first eleven pages of the book is devoted to a very interesting introductory, giving an outline of the different methods of investigating and studying physiology. Following this the author takes up and discusses very freely and completely

the various topics included in a book on physiology. In this the second Edition the fundamental plan of the work remains unchanged. The recent advances in our knowledge of Physiology, especially of Physiological Chemistry and of function of the Nervous System, have necessitated the rewriting of a great part of the work and the addition of new illustrations. A detailed review of the work is not necessary. It easily stands among the first books of the day. The engravings are excellent, the binding first-class, and it is printed on clear white paper. It is a very handsome volume.

Text-Book of Ophtholmology. By Dr. Ernest Fuchs, Professor of Ophthalmology in the University of Vienna. Authorized Translation. Revised from the Seventh Enlarged and Improved German Edition. By A. Duane, M.D., Assistant Surgeon Ophthalmic and Aural Institute, New York. With 277 illustrations, 860 pages. Second American Edition. New York: D. Appleton & Co. 1899.

Since the first American Edition of this work five German Editions have been issued, each one containing some important new matter and leaving the old matter thoroughly revised, so that this second American from the seventh German Edition of this standard work is well nigh perfect. Prof. Fuchs' "Lehrbuch der Augenheilkunde" is so well and favorably known that it is not necessary to do more than refer to it and to add that the translator, Dr. Duane, did faithful and efficient work. Every one should have this book who desire a standard, authoritative work on Diseases of the Eye. As for the Press work, it is enough to say that Appleton is the publisher.

Practical Diagnosis. The Use of Symptoms in the Diagnosis of Disease. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Fourth edition, enlarged and thoroughly revised. In one octavo volume of 623 pages, with 205 engravings and 14 full-page colored plates. Cloth, $5.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York.

Not quite three years ago this book was first given to the profession and the fourth edition is now necessary. It is impossible to enumerate all the good qualities of this work, it is well titled, for it is full of practical, sound common sense.

The contents are divided into two parts: "The Manifestation of Disease in Organs," and "The Manifestation of Disease by Symptoms."

Dr. Hare's experience in didactic and clinical teaching for the past twelve years serves him a good turn in the preparation of this work. The fact that the book is not arranged by diseases, but by symptoms, makes it very easy to look up a case, as patients come to us not with diseases but with symptoms.

This book is to be commended for all physicians, whether in the country or in the town, whether doing office practice or hospital work, if you want to do better work then keep this book handy on your desk, it is not to pack away in your bookcase, but for everyday use.

Pulmonary Tuberculosis. Its Modern Prophylaxis and Treatment in Special Institutions and at Home. Alvarenga Prize Essay of the College of Physicians of Philadelphia for the year 1898, revised and enlarged. By S. A. Knopf, M.D., (Paris and Bellevue, N.Y.) Physician to the Lung Department of the New York Throat and Nose Hospital: Former Assistant Physician to Professor Dettweiler, Falkenstein Sanatorium, Germany; Vice President of the Pennsylvania Society for the Prevention of Tuberculosis; Fellow of the American Academy of Medicine; Laureate of the Academy of Medicine of Paris, etc. With descriptions and illustrations of the most important Sanatoria of Europe, the United States and Canada. Octavo. Price net, $3.00. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa.

A wealth of information on Tuberculosis is contained in this book. Dr. Knopf will be remembered as the author of "Les Sanatoria, Traitement et Prophylaxie de la Phtisic Pulmonaire." and his long study of this subject is well brought out in the book before us.

The fact that the College of Physicians of Philadelphia honored his work with the Alvarenga Prize for 1898, is first-class evidence of the ability of the author to handle the subject of Sanatoria.

The book is beautifully printed and bound containing seventy-six well executed illustrations. A most excellent chapter is the fourth, on "The Communicability of Pulmonary Tuberculosis and the means to combat its Propagation by individual Prophylaxis."

The sanitary laws in force in the different countries are very suggestive. The description of the most important Sanitoria of Europe, Canada and the United States is well written and illustrated. When we think of the prevalence of this disease and how little the most of us know about the details of its treatment, we can not help saying that this book should be in the hands of every physician in the land.

The chapter on the treatment of consump-

tives at their homes is well worth the price of the book to the most confirmed country doctor.

The Twelve Tissue Remedies of Schussler, Comprising the Theory, Tharapeutic Application, Materia Medica and a Complete Repertory of these Remedies, Homœopathically and Bio-Chemically Considered. By William Boericke, M. D., Professor of Materia Medica and Therapeutics in the Hahnemann Hospital College of San Francisco, Member of the California State Homœpathic Medical Society, American Institute of Homœpathy, etc., And Willis A. Dewey, M. D., Professor of Materia Medica in the University of Michigan Homœopathic Medical College, Corresponding Member of the British Homœopathic Medical Society, and of La Societe Francaise d' Homœopathie, Member of American Institute of Homœopathy, etc. Fourth Edition, Rewritten and Enlarged. Boericke & Tafel, Philadelphia. Price $2.50 Cloth. By Mail $2.73.

Perhaps very few of us have an intelligent opinion of homœopathy; we simply condemn it on general principles or use it tentatively when we only want to be doing something. The case is presented for what it is worth, and Drs. Boericke and Dewey give a reason for the faith that is within them and to get an intelligent idea of what homœopathy really is we should read this book. The Twelve Tissue Remedies are, fluoride of lime phosphate of lime,sulphate of calcium, phosphate of iron, chloride of potassium, phosphate of potassium, sulphate of potassium, phosphate of magnesia, chloride of sodium, and silica or silicious earth. Therapeutical application is from abcess to yellow fever. The repertory is a well-arranged index of diseases, symptoms and treatment.

Progressive Medicine—A Quarterly Digest of Advanced Discoveries, and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D,, Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth. 468 pages, 50 illustrations, and 3 plates. Lea Brothers & Co., Philadelphia and New York.

The second volume of "Progressive Medicine" for 1899 is out and the high standard set by the first volume is being maintained. No man can have excuse for being behind the times when such a work is to be had. "Progressive Medicine" is a quarterly digest of new methods, discoveries and improvements in the medical and surgical sciences by the most eminent authorities. It is abundantly illustrated, well bound in cloth and makes a handsome addition to one's library. The price is $10 per year or $2.50 per volume, certainly cheap considering the character of the work. The contents of this volume include "Surgery of the Abdomen, including Hernia," by William B. Coley, M. D.; "Gynecology," by John G. Clark, M. D.; "Diseases of the Blood, Diathetic and Metabolic Disorders. Diseases of the Spleen, Thyroid Gland, and Lymphatic System," by Alfred Stengel, M. D.; "Ophthalmology," by Edward Jackson, M. D.

All that is new and worth knowing is well told under these subjects, and the progressive man should be a subscriber to "Progressive Medicine."

History up to Date. A Concise Account of the War of 1898 between the United States and Spain. Its Causes and the Treaty of Paris. By William A. Johnston. 16 Illustrations. Red Cloth, 258 pages. A. S. Barnes & Co., New York.

Most of us are sick and tired to death of the everlasting war with Spain, which has been told up one side and down the other. Still we all want a well written account of this part of our history, something to place in our library for reference when a neighbor drops in to tell us of the San Juan charge. This "History up to Date" is the very thing we want. It is succinct and clear, the writer simply writes what you want to know and does not waste ten pages telling how the mule train backed into a hornets' nest and that several were badly stung. The illustrations are fine, and the printer's work is without fault or blemish. If you want a well written history of the war with Spain in a nice size, in the highest style of the printer's art, then get "History up to Date" by William A. Johnston.

Perhaps you read after him in the "Evening Telegram," if so, you will certainly have the book.

Legal Decisions Affecting Physicians, Dentists Druggists and the Public Health. By W. A. Purrington of the New York Bar. New York E. B. Treat & Co., 241-243 West 23d Street. 1899. Price 50 cents.

This work contains 104 pages and gives many interesting cases affecting medical men. As a general thing medical men know absolutely very little about legal matters. In fact, the subject is almost a foreign one to them; hence the great importance of this little work. It gives very fully a review of cases affecting medical men, notes on legal decisions, and a valuable chapter on Manslaughter, Christian Science, and the

law. This chapter should be read by all medical men. The pamphlet is neatly bound and nicely printed.

Porto Rico and the West Indies. By Margherita Arlina Hamm, author of "Manilla and the Philippines." F. Tennyson Neely, London and New York. 31 Illustrations. 230 pages. Red Cloth.

Where is Porto Rico? In the United States. What are the chances there for a young doctor with a new pair of saddle bags and a fine pocket case of instruments? Has Porto Rico a State Board of Medical Examiners? What kind of climate has this part of the country for a middle aged doctor, broken down with hard work and harder winters? Before answering these questions you had better read this book. The author writes from a personal knowledge of the place and the people.

Among the contents are Suggestions to Travelers, the Animal World, the People, Social Life, City Life, Coffee, Sugar and Tabocco Raising, Business Opportunities, etc.

The Transactions of the Medical Society of the State of California. Twenty-eighth Annual Session. Fresno. 1898. Vol. 28. 352 pages. Three plates. Published by the Society. Press of the Hicks-Judd Co.

Our brothers across the hills and far away know how to manage a medical society, and in that Western State, which was a wilderness at the time several State Societies were celebrating their fiftieth anniversary, there is now a State Society which will compare with any of them. The publication committee have a good cut of Dr. Bard, the outgoing President. It would seem a valuable part of the Transactions of all the Societies in the after years if in each volume a well made cut of the President was placed. The committee reports are full and a number of valuable papers were read.

Dr. W. W. Kerr, San Francisco, is President for 1899. Dr. D. A. Hodghead, San Francisco, Secretary.

Transactions of the Medical Association of Georgia. Forty-ninth Annual Session. 1898. 274 pages, Six plates. Published by the Association. Atlanta.

Twenty-one papers were presented at the Forty-ninth Annual Session of the Medical Association of Georgia, and they appear in this volume.

The good people of Cumberland Island made three addresses of welcome, so that the members could not help from having a good meeting.

The work shows careful editing and is a good sample to go by for the State Societies around. The printing and binding are well done,

Dr. Westmoreland, of Atlanta, reported 23 successful cases of Tracheotomy for Foreign Bodies in the Air Passages.

Dr. Fitch, of Savannah, read a paper on "Tight Lacing, which the women should read.

The Medical Association of Georgia is in a flourishing condition, to judge by her printed Transactions.

Dr. Howard J. Williams, of Macon, is President, and Dr. R. H. Taylor, of Griffin, Secretary.

Transactions of the Iowa State Medical Society. Volume XVI. Forty-seventh Annual Session. 1898. Burlington, Iowa: The Keehn-Hofner Manufacturing Co., Printers and Binders.

These Transactions come to us well bound and printed, a volume of 425 pages, containing forty-six papers, all of which were read at a three days meeting. Several papers of interest and merit were among them and the work done by our far-away sister will compare very favorably with that done by our Eastern States.

We notice that she is two years older than our State Society, but we are not at all jealous. The President, Dr. Henry B. Young, is of Burlington. Dr. James W. Cokenower, of Des Moines, is Secretary. The next meeting will be held in Cedar Rapids.

Transactions of the Thirty-fourth Session of the Homœopathic Medical Society of the State of Pennsylvania. Pittsburg, September, 1898. Sherman & Co., Printers, Seventh and Cherry Street, Philadelphia.

Homœopathy is in a very flourishing condition to judge by this volume of papers and discussions. It would do credit to any regular State Society. It is a beautifully printed, cloth bound book of 370 pages and shows the work of a careful editor. Some forty-eight papers are contained in the volume.

The next meeting will be held in Philadelphia under the Presidency of Dr. B. F. Betts, of Philadelphia, Dr. George B. Moreland, of Pittsburg, Recording Secretary.

Transactions of the Twentieth Annual Meeting of the American Laryngological Association, held in the city of Brooklyn, N. Y. 1898.

Some thirty odd papers, by men eminent in their specialty, are contained in this volume. We notice that the Secretary or the Publication Committee, or both, do not allow anything to interfere with the presentation of the actual work of the Association,

the book being exceedingly well edited. An ideal index is found at the back of the volume, being a complete index to twenty years' work of the Association. Dr. W. E. Casselberry, of Chicago, is President, and Dr. Henry L. Swain, of New Haven, is Secretary and Treasurer for the session of 1896, which will be held in Chicago.

LITERARY NOTES.

The signs of the times on the industrial and business horizon are outlined in the June number of the American Monthly Review of Reviews. In the department of "The Progress of the World" the editor discusses the new era of prosperity, the restored wages of labor, the tendency toward the consolidation of capital, railroad amalgamation, the relation of modern monopolies to the heaping up of great fortunes, the value of franchises and proposed tax reforms, and other conditions and problems of the day in the business world. Mr. Byron W. Holt contributes an article on "Trusts—The Rush to Industrial Monopoly," in which he sets forth the facts in connection with the recent startling development of the trust-forming mania, as it is beginning to be called. A feature of Mr. Holt's article is a carefully prepared list of more than one hundred and twenty-five industrial combinations now operating in this country, each of which is capitalized at not less than $10,000,000. This list was revised to May 20, and includes the concerns formed during the past few months.

In the American Monthly Review of Reviews for July the editor reviews the work of our delegation at The Hague up to date, presenting the latest phases of the arbitration question, with some consideration of its bearings on the present international situation. Among other topics discussed in "The Progress of the World" this month are "tariff trusts" as a political issue, the Dreyfus vindication, the war in the Philippines, the recent change in the civil-service rules, and the newly elected college presidents.

In the June number of The Forum, Prof. G. R. Carpenter, of Columbia University, takes up the cudgels in behalf of Dumas the elder. To the charge frequently made, that Dumas was rarely the legitimate author of his own works, and that his ideals were low, and unfit for common use, Mr. Carpenter replies with considerable skill and with all the warmth of an ardent admirer of the great French dramatist. He shows that Dumas was no vulgar compiler or mean plagiarist; that it is of honor he tells most willingly, of man's friendship for man, and of a nation's slow progress upward toward order and justice. Mr. Carpenter's article will be welcomed by the student and the general reader alike.

The Forum has a number of interesting articles this month. Among them are: "The Trust Problem and its Solution," by Ex-Senator W. A. Peffer; "Lord Rosebery and the Premiership," by H. W. Lucy, who contributes the weekly "Essence of Parliament" to Punch; "Was Columbus Morally Irresponsible?" by Prof. C. Lombroso, the eminent criminologist; and "The Future of the Negro," by W. H. Councill, the colored president of the Agricultural and Mechanical College for Negroes, at Normal, Alabama.

Andre Bellesort's "A Week in the Philippines," which The Living Age has translated from the Revue des Deux Mondes, is the more interesting because this sprightly Frenchman saw the islands in November, 1897, before they had assumed any interest to Americans, but while the Philipino insurrection against Spain was in progress. He writes of them graphically and with a Frenchman's characteristic lightness.

One of the most thoughtful contributions to the discussion of the questions of propriety involved in the publication of the Browning Love Letters is the article in the Edinburg Review on Discretion and Publicity, reprinted in The Living Age for June 24.

Scribner's Magazine for June opens with a richly illustrated article by Cecilia Waern who describes the wonderful advance in art made by her fellow-countrymen under the title of "The Modern Group of Scandinavian Painters," and discusses such eminent artists as Thaulow, Larsson, Zorn and many others, samples of whose work are given in excellent engravings.

MISCELLANEOUS.

Organotherapy in Gynecology.

W. A. Newman Dorland (Therapeutic Gazette). The axiom of Christian Martin that "physiologically there is no difference between a woman with half an ovary and a woman with two ovaries, while there is a great difference between a woman with half an ovary and one with none," should, he thinks, be placed among the imperishable quotations in medicine. From his limited

personal experience, which is most favorable testimony as to the value of ovarian extract, and from the extensive literature upon the subject, he formulates the following statements:

The ovaries, in common with other glandular organs of the body, exert an occult, but very positive, influence upon the general organism.

When this influence is removed, either by the natural atrophy of the glands at the climacteric, by destruction of the ovarian stroma from pathologic processes, or by extirpation of the organs, there results a series of distressing phenomena, including hot and cold spells, nervous and mental manifestations, and neuralgic attacks.

The administration of ovarian substance, or of the extract of ovarian tissue is promptly and very generally followed by a marked amelioration of these symptoms.

The average dose required varies from two to five grains of the extract administered thrice daily.

The excessive doses of the remedy will be followed by cardiac and nervous manifestations, necessitating a diminution in the dose administered, or a complete, though temporary, change of treatment.

In some cases there appears to be developed a tolerance to the remedy whereby its effects are diminished in intensity. For this reason it is better to begin with small doses, and gradually increase the amount as may be indicated in the given case.

The Causes of Death in Remittent Malarial Fever.

Dr. W. E. de Koste (Journal of Tropical Medicine, March, 1899). The fever in question is that met with in the South African Karroo, a name well known to those interested in palæontology as being the locality in which have been found many remarkable amphibians peculiar to Triassic formations. The causes of death are divided into four groups—perforation of the intestine, hæmorrhage from the bowel, coma, and necrosis. The two first causes of course strongly suggest the presence of enteric fever, and particularly so as the author considers that it may be brought about by injudicious feeding. But unless the wall of the intestine were previously affected, there is no reason why perforation should under such circumstances take place. It seems, however, that in these cases gastro-enteritis is present, but ulceration is not mentioned. Hæmorrhage from the bowel seems to be due to a general hæmorrhagic tendency, caused by the impaired state of the blood. The latter, again, depends upon the presence of a malarial parasite in all probability. As in the hæmorrhage of enteric fever, the use of turpentine is generally found to be most satisfactory. The author speaks favorably of the hypodermic injection of quinine in coma. A hopeless case may be converted into a hopeful one by the hypodermic injection of 5 grains of quinine, repeated if necessary. In death by necrosis of the skin, it seems that it is very difficult to induce the phenomena of quinism. Further, a case hitherto simple may unexpectedly develop skin necrosis, and such cases are very fatal. We are yet very imperfectly acquainted with the pathology of remittent and intermittent fever, but the author states that the plasmodium of the form of malaria under discussion closely resembles that of the so-called æstivo-autumnal fevers. The points of resemblance to enteric fever are interesting and suggestive, and would seem to be likely to repay further investigation.

When Shall the Post-Pregnant Woman Sit Up?

The Journal of Obstetrics for June, 1899, contains an editorial on this subject. It is a sensible article. The following is a part of it.

Just what influence is at the bottom of the rule-ridden system that directs us in most obstetrical customs it is hard to say, unless it is due to the general similarity of labor with its fore and after accompaniments. No other branch of medicine seems to be guided by such arbitrary rules as obstetrics. When ergot-giving was in vogue every patient, strong or weak, must receive the inevitable drachm. The binder had to embrace every abdomen, large or small; the vaginal douche scoured all vaginæ, clean and unclean; and even the dear doctor's visits must be regulated by the calendar rather than by the medical needs of the patient.

The patient's escape from her puerperal bed has been under the chain of rule and regulation. The obstetrical statistician, and we are all statisticians, gathers from a thousand recorded confinements that the average length of time in bed was eight or nine days, and as most of the patients lived and had other babies, this length of time, therefore, was the best time, etc.

All of which is very absurd. If a doctor's judgment is so poor that he had best follow averages, he had better "brush up." Put a healthy, strong man in bed and keep him there for a month, and he will get up invalided for the time being. It is just as bad to keep one woman fourteen to twenty-one days in bed as it is to let another one

up in four to seven days. Many healthy, well-exercised women do not need to remain recumbent longer than from seven to nine days, while some can begin to get up upon the fifth day without apparent harm. Patients whose muscles are "soft" and who have been accustomed to indolent, lazy living, will require from twelve to twenty-one days, even though there are no lesions of the uterus or perineum. Lacerations along the genital tract place those so injured in a class by themselves. They cannot get up until their wounds have healed. A good working rule, which always requires individual application, is that a patient should begin to sit up whenever she can do so without such posture causing gravity congestion in the genitalia. The change of posture sometimes causes an increase in appetite, and even acts as a stimulus to the uterine muscle. The erect posture should, of course, be assumed quite gradually, the patient sitting up only a few minutes at a time, lengthening the time according to the sense of comfort and absence of effect upon the lochial flow. Much assistance to uterine involution can be had by the use of sponge baths, ergot, strychnine, and massage.

The one great difficulty in the practical application of individually determined periods for getting up lies in the objection that the surgical doctrine of non-intervention imposes in the care of women in the days immediately following labor. We should not palpate the uterus per vaginum at such times if we can avoid it.

And this gives more excuse for practicing by rote than most such work deserves. Repair of the cervix immediately after delivery is generally opposed, and we think justly; but when we judge from the general condition of the patient that she might be benefitted by sitting up, we are justified and obligated to make a speculum examination to note the condition of the cervix and inferentially of the endometrium after the seventh day.

There is probably more general ignorance in physicians regarding the phenomena of genital behavior in the fortnight following labor than in all the other periods of pregnancy combined. We cannot say that we would have them endeavor to clear away this ignorance by frequent direct examinations, for more women would probably be harmed than helped for a time, but we do hope there will be a gradual improvement in the attention given by teachers and a consequent advance in diffused knowledge that will enable all to apply the rule of individuality in all cases as to when the post-pregnant woman shall sit erect.

Maternal Impressions.

That is a beautiful review of the literature on "Maternal Impressions" by Dr. Ogle in the Charlotte Medical Journal for May. A condition of doubt and wonder is manifest throughout the whole article; doubt as to a satisfactory explanation of, and wonder at, the phenomenon of Maternal Impressions. That it does occur in certain impressionable individuals with seeming slight causes, and fails to occur in others with equally impressionable constitutions, and if possible greater cause, cannot be controverted. But to assign a true physiological reason for its occurrence at any time, seems to be the fault of his own, as well as the writings of others. No wonder people viewed this occurrence with such superstitious ideas, when we consider that their ignorance of most physiological knowledge, as compared with our advancement. It seems a reasonable inference, that if "Thought Transference" or Telepathy, is possible, a plausible theory would be established in assuming that a vivid impression of any kind in a pregnant woman might be photographed upon the fœtal body, and the negative developed through the continued mental operations of the mother during the developmental process of the fœtus. It is the experience of us all that the occurrences of life continually recur before our mental sight; and a perfect photograph is made upon memory's tablet to be looked at when the will so directs. There certainly is no more connection between the mother and child, either sensory or motor, than between the mother and the food she eats. There is one noticeable point in the cases reported in Dr. Ogle's paper, viz: The cause for Maternal Impressions to be effective, must occur before the time of viability, the prominent thought then being of its occurrence during the developmental process. Forensic Medicine accepts viability to mean the time when the fœtus would be capable of independent life. We can only theorize, in the present state of our knowledge, upon these seeming unknowable questions concerning life; and since destruction of the fœtus before the time of viability is much more likely from external influences, it reasonably follows that whatever produces the so-called maternal impression would have a like greater effect at this time of greatest susceptibility. It is a most perplexing question, and since theory is all we are permitted to deal with concerning its cause, I venture to suggest that the mental picture drawn by the mother, and constantly referred to that part of her child corresponding to the part of the object from which the photograph was

taken, would account for the indellible character and locality of the mark, and being taken during the developmental process would account for the frequency of maternal impressions during that period. Furthermore, the varying physical and mental conditions of the mother during pregnancy greatly influences the character in a general sense of the future child and adult, and we may reasonably conclude that telepathic influences may develop a picture upon the fœtus whose normal development is so subject to the influences of the mother. It must be done telepathically during the developmental process of the fœtus, as that is the time of greatest susceptibility. A case in point from observation will not be out of place here. A lady thirty-eight years of age, during her eighth pregnancy, visited a neighbor lady sick of erysipelas of face and head. Patient's face was painted with iodine. She had not thought of danger to her future child until it was suggested to her by another visiting lady, who urged her to retire as her child would be marked (as she expressed it) when born. The pregnant lady retired from the room to brood and meditate upon what she had done, and when the child, a girl, was born, it was marked as if iodine had been spread over a great part of left side of face, extending behind the left ear into the hair. Child now perhaps twelve years of age. None of the brothers or sisters previously, seven in number, or since, two in number, have been so afflicted. Father and mother healthy and very intelligent people. This case gives prominence to the idea that suggestion may be necessary in order to effect "Maternal Impression" in most cases; as the mother in this case would never have thought of any evil consequences had not her friend "suggested" it.

W. C. Dunaway.

Little Rock, Ark.

Salicylate of Sodium in the Treatment of Pneumonia.

William C. Sebring (Medical Record of April 22, 1899,) believes that salicylate of sodium and salicylic acid are almost specific in lobor pneumonia. He makes the following statements:

In the beginning of an attack it quickly quiets the tumultuous heart.

It acts as a sedative to the general nervous excitement that is prevalent through that period; indeed, it acts as a hypnotic in some cases all through the course of the disease. A fair proportion of the patients have slept a major part of the time, until recovery had become well established.

It almost surely and quickly gives relief from the pleuritic pains.

It seems to inhibit the manifestation of malign mental symptoms. Thus far none of the patients have developed the least delirium after beginning to take the drug, except five cases of drunkard's pneumonia, in which the delirium preceded the disease.

The pulse remained full and not overrapid to the end, except in one case. Cardiac symptoms due to the disease itself have been unnoticed, and symptoms of a "tired heart" do not often occur.

After the first few doses of the drug the patient will perspire freely as long as the diseased condition of the lungs persists, but either from this cause or from some other that the author is not cognizant of, the temperature seldom exceeds 103 deg. F.

The cases will show a far smaller percentage of complications than is usual.

In nineteen out of twenty cases the disease will subside by lysis.

The length of time required for recovery is less than is the rule with patients that recover under the usual treatment and by lysis.

The infected lung tissue progresses to resolution more slowly than it does with the average case, though complete recovery from an attack—that is, return to normal health—is more expeditious.

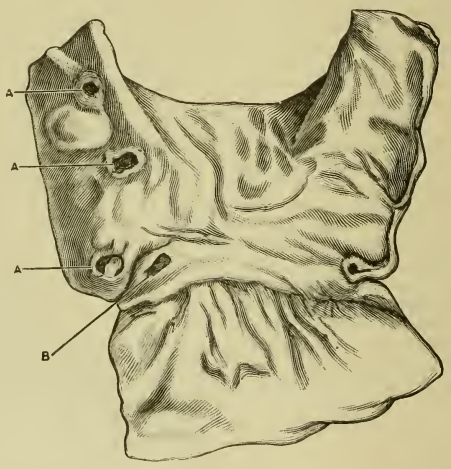
There is a marked diminution in the severity of the disease, all conditions being taken into consideration.

Medical Progress—Typhoid Fever as a Systemic Disease of Manifold Manifestations.

It has become so common to regard typhoid fever as a local affection, the lesions of which are situated in the lower part of the small and the beginning of the large intestine, that the essentially systemic character of the disease has been more or less lost sight of. Of course it is clearly understood that the absorption of toxines from the typhoid ulcers in the bowel gives rise to very prominent constitutional symptoms, while the occurrence of spots on the skin shows a cutaneous attempt at one stage of the disease at least to eliminate certain toxic substances, biological or chemical in nature, from the circulation. Most of the pharmaceutic schemes of treatment planned for typhoid fever however are limited to the use of drugs that act upon the intestinal tract. Intestinal antisepsis has been a favorite catchword of the ambitious therapeutist in many diseases beside typhoid, though each new attempt to create this condition has proved as ineffectual as the last, further therapeutic claims in this line gain

a ready hearing if they but seem to be bolstered up by a pretended successful clinical experience. Of late years, however, we have come more and more to the realization that typhoid fever is as characteristically a constitutional disease as measles or scarlet fever. The main lesions in both of the latter diseases are situated in the upper air passages, but we by no means consider that the angina of scarlatina or the severe coryza in measles constitutes the essence of either disease or furnishes the only indications for treatment. Prof. Chiari's work at Prague has shown that typhoid not infrequently limits itself to the bile passages and this notwithstanding all that we have recently learned about the bactericidal power of bile. Osler's work in this country besides confirming Chiari's observations as to typhoid localization in the bile passages, has served to show that, exceptionally at least, the lesions of typhoid fever are limited to other localizations—the spleen for example. Certain French clinicians claim to have observed typhoid fever of the meninges or a fibrile disease in which the only possible cause discoverable was the presence of Eberth's or Jaffky's bacillus on these membranes. Even where the lesions of typhoid fever are limited to the digestive tract we are gradually being brought to realize that they need not necessarily be localized within the immediate neighborhood of the cæcum, but under special condition of poorly resistive vitality typhoid ulcers may occur in other parts of the gastro-intestinal tract. A striking illustration of this is afforded by one of the plates in Prof. Hare's new book on The Medical Complications of Typhoid or Enteric Fever.* The illustration which we present herewith reproduces a set of typhoid ulcers that had developed in the stomach of a young girl who succumbed during the third week of her attack. Four well defined ulcers were noted in the pyloric region, one of which presented a loosely adherent slough. It appears that under certain circumstances not well understood as yet a diseased condition of the solitary glands of the gastric mucosa may give rise to a form of perforating ulcer of the stomach which closely resembles the idiophatic ulcer of typhoid fever as that lesion is usually observed in the ileo-colic region of the intestine. It is interesting to note that in this case there was no hæmatemesis to arouse suspicion of ulcers of the stomach.

The great diversity of typhoid complications has by no means received the general attention the importance of the subject deserves and we venture to predict that by their more diligent study many dark places in both diagnosis and treatment will be made plain. In this direction Dr. Hare, with characteristic energy, has taken a long step.



"You were always a fault-finder." growled the wife. "Yes, dear," responded the husband meekly; "I found you."

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*The Medical Complications, Accidents and Sequelæ of Typhoid or Enteric Fever by H. A. Hare, M. D., with a Special Chapter on the Mental Disturbances following Typhoid Fever by F. X. Dercum, M. D. Lea Brothers & Co., Philadelphia, and N. Y., 1899.

Experiences and Remarks on Blood Treatment in the Hospital of Prof. E. H. Pratt, M. D., Chicago.

Something more than five years ago Dr. C. S. Eldridge, of Chicago, asked me if I was alive to the value of local feeding in varicose ulcers of the legs. I replied that I was not. He then informed me that he had rapidly cured a few bad cases of varicose ulceration of the legs which had proved intractable to other measures, by the local use of bovinine. His method of application was to saturate a few layers of sterilized gauze with bovinine, full strength, and apply it directly over the ulcerated surfaces, holding it there by bandaging. The application was made twice a day. The ulcers rapidly began to heal, and in the course of a few weeks time were completely cured.

SUPPLIED BLOOD VERSUS GANGRENE.

During the next week there chanced to come under my observation the only case of gangrene of the scrotum that I had ever seen. It had resulted from subcutaneous ligature of the pampiniform plexus of veins for the cure of varicocele in an anæmic subject. The gangrene appeared at the bottom of the scrotum a few days after the operation, and spread rapidly. In spite of all efforts to check its progress the lower half of the scrotum rotted away, exposing testes, upon which gangrene spots speedily put in an appearance. Red streaks extending from the scrotum upwards and outwards along either groin indicated that the progress of death was going on along the tissues in the direction of the cords, the left one being the more marked. The areolar tissue beneath the inflammed tracts rapidly rotted away, so that the finger could readily be passed its full length in the direction of the inguinal canal on either side. The patient's temperature ranged from 101½ to 103 degs., his pulse seldom going below 120, and death was rapidly approaching. Strenuous efforts were made to check the progress of the spreading gangrene, but to no purpose. The necrotic surfaces were frequently and thoroughly dressed with various antiseptic preparations, such as charcoal, quinine and iodoform, after being carefully cleansed with sometimes bichloride solution, sometimes carbolized water, and sometimes a weak solution of bromine. In spite, however, of continuous and faithful attention to the decaying parts as well as careful treatment of the patient's general condition by the exhibition of appropriate internal remedies, the gangrene spread rapidly and the room became so offensive with the odor of death as to be nauseating to those in attendance upon the case, and the exhibition of Platt's chlorides and other atmospheric disinfectants seemed to be utterly powerless to control the terrible odor. After at least two-thirds of the scrotum had rotted away and the patient's life completely despaired of, it occurred to me to try the efficacy of local feeding as a last resort; the appearance of the granulating surfaces in the few places where they could be observed between the large patches of gangrene upon the surfaces of the testes, pointing to the fact that the tissues were certainly badly starved, they were so pale and anæmic and fragile in their nature. Accordingly the man was placed under an anæsthetic. Much of the dead tissue was removed with the aid of tissue forceps and scissors, some of it, however, clinging so closely to the decaying surfaces as to render the removal of all patches of gangrene impossible. Iodoform gauze was then soaked in bovinine, each testis was wrapped in a separate strip of it, pieces of it were tucked well up into the groin under the line taken by the rapidly spreading disease, then a large piece of it was wrapped around the entire scrotum and spread over the outer surfaces of the groins. While memory lasts I can never forget the extreme surprise as well as satisfaction at the result of the treatment. The odor immediately disappeared from the room, the fever of the patient subsided, his pulse lowered, and he was perceptibly better in every way, his restlessness and thirst rapidly disappearing, and he became for the first time comfortable. Bovinine was poured over the surfaces of the gauze once in two hours, but the dressings were not removed for twenty-four hours, although previously they had been changed every two and three hours in order to stay the progress of the disease if possible. When the dressings were removed at the expiration of twenty-four hours, there was no odor whatever to the wound, and although the patches of gangrene were not entirely gone the granulations were of a healthier type. The bovinine dressings were again applied, this time without the anæsthetic, and were kept in position this time for forty-eight hours, saturating the gauze every two hours by pouring bovinine over its outer surface as had been previously done. When the dressings were removed the gangrene had almost entirely disappeared, the exposed surfaces had taken on a healthy appearance, and the case was evidently rescued. The bovinine dressings were continued until the case was entirely recovered. So much of the scrotum had sloughed away, however, that as the wound healed it left tne testes exposed in two-thirds of their extent.

SUPPLIED BLOOD IN PLASTIC OPERATION.

The man was then anæsthetized, the lower margins of the remaining portions of the scrotum denuded, drawn down and brought together over the testes so as to satifactorily cover them. A dressing of bovinine was placed over the wound, which healed without suppuration, and the final result was a complete recovery, the appearance of the parts being that of a first-class amputation of the scrotum.

SUPPLIED CLOOD FOR A GANGRENOUS HOSPITAL.

The success of local feeding in this case was not forgotten. Soon after, while on service as a consulting surgeon in Cook County Hospital, gangrene appeared in one of the wards, and fully alive to the serious nature of the infection, I tried to prevail upon the authorities of the hospital to furnish bovinine to stay the scourge. This they refused to do on account of the expense of the preparation and because they considered it a food and not a medicine, and a proprietary article at that, and as a result of the various excuses which were trumped up I was not able to obtain it from the hospital supplies. Resolved, however, to stay the scourge at all cost, I furnished the bovinine myself, and had the extreme satisfaction of bringing every single case to a rapid and successful recovery, and completely stamping out the plague from the wards in which it appeared. Backed by this experience of bovinine in so formidable a malady as gangrene, it occurred to me that it it might be as serviceable to prevent gangrene as well as to cure it.

SUPPLIED BLOOD FOR A GYNÆCOLOGICAL OPERATIONS.

In several of my operations for vaginal hysterectomy, where the vault of the vaginal had been in such a poor condition of nutrition as to become mottled with purpuric spots while cleansing the vagina for the operation, I had trouble with the subsequent appearance of gangrene in the vault of the vagina. Bovinine here, as in the other cases, had been my sheet anchor and proved adequate to the occasion. Reflecting that what could be cured could certainly be prevented, I then began the practice of local feeding in the vagina in those delicate cases where hysterectomy had been determined upon and the appearance of gangrene was feared as a consequence.

Here is a case in point, for instance: A lady, seventy-three years old, was suffering from tic douloureux so severely that living was becoming so intolerable that she longed for death, as she saw no prospect of any other relief from her extreme suffering. She was then brought to me for treatment, and upon making an examination of the pelvic organs I noticed that the vagina was so pale and anæmic and the circulation so poor that the mere process of examination produced a mottled appearance of the atrophied cervix and the vault of the vagina. She was under an anæsthetic at the time of the examination, so instead of operating upon her I simply dilated the uterus, which presented the appearance of having been lacerated at one of the confinements she had sustained in the earlier part of her life, dilated and trimmed the rectum, and then placed her in bed. When she awoke I informed her of her condition, and that I was very sorry to say that I could not do the work necessary to relieve her neuralgia on account of the poor condition of nutrition of the parts, but that she would have to be patient for at least a month in order to be put in proper condition for the radical work. Agreeably to my word I kept the vagina filled with bovinine night and day, injecting two or three teaspoonfulls with a small syring and plugging the vulva with cotton so as to prevent the food from escaping. At the end of that time the vagina could be douched and manipulated without inducing purpuric spots. She was again anæsthetized and the uterus, ovaries and tubes removed. I am pleased to report that the wound healed witnout the slightest trace of suppuration or the exhibition of any approaching gangrene. She made a rapid convalescence, the tic douloureux was immediately relieved, and in two weeks time she was able to sit up in bed and in a month's time was discharged a perfectly well woman. Nearly two years have gone since then, and her tic douloureux has never returned. She has gained thirty pounds of flesh and is now one of the happiest and healthiest women in Wisconsin. I am satisfied that but for the aid of the local feeding I would scarcely have been able to carry this case to a successful issue. I have found local feeding of the vagina by means of bovinine valuable also not only as preparatory treatment for operative interference, but to renew the tonicity and vitality of the parts in cases where sexual waste from various causes has been excessive and the general strength of the patient correspondingly depleted. It seems to feed, strengthen and revivify the tissues to which it is steadily applied for a few weeks in succession. I have never known it to cause irritation or inflammation or any unhappy results, not even discomfort. On the contrary, it seems to be stimulating and strengthening to the general system as well.

BLOOD AND OXYGEN FOR STERILIZATION OF PARTS.

While I am speaking of the subject there is another use which I have also made of bovinine to which I would like to attract your attention, and that is in the preparation of a field for intended operation upon the skin surfaces. It is now an almost universal practice to scrub a surface that is to be operated upon with soap and water by means of a flesh brush, before making use of ether, alcohol, and bichloride of mercury or carbolic solution or whatever germicide is selected. The alcohol and ether and the germicides are all right, but the scrubbing process has its disadvantages. While it removes the sebaceous matter and other sources of infection from the surface of the cuticle, the scrubbing does not reach the deeper parts of the sebaceous and sweat glands, and at the same time it scratches away so much of the cuticle as to leave the sensitive and readily absorbing surface at the mercy of any infecting matter to which it may be exposed. There is a substitute for the scrubbing which is more effective as a cleansing measure, which saves the traumatism occasioned by the more scratching of the brush, and which has been so satisfactory in my practice now for several years that I desire to give it my hearty endorsement and suggest it as a measure for general adoption by the profession, and that is the local applications of bovinine, followed, while the bovinine still covers the surface, by peroxide of hydrogen. Peroxide of hydrogen seems to have a very marked affirmity for bovinine, so that it froths and bubbles as soon as it comes in contact with it as though it were attacking pus or blood. It makes an even more active attack upon bovinine than it does upon other matters, as evinced by the heat evolved as the frothy product is produced. Bovinine is so penetrating as to enter both the sebaceous and sweat glands freely, and the peroxide of hydrogen proves to be equally penetrating, for it removes every trace of the bovinine and with it all evidence of grease or filth of any kind. After the froth has been washed away by sterilized water, the surface of the skin appears clean and smooth and is then ready for the aseptic or antiseptic solutions, as the surgeon may prefer. I have now employed this combination of bovinine and peroxide of hydrogen in several hundred cases as the first measure in cleaning an operating field, and it has given me such complete and universal satisfaction that I heartily commend it to the consideration of my fellow surgeons.

The Diagnosis of Cerebellar Abscess in Children.

Abscess in this particular locality is extremely rare as compared with the cerebral area, but we should know the prominent symptoms when in does occur, for it is uniformly fatal unless the diagnosis is made early and an operation performed at once. Dr. L. J. Hammond, surgeon to the Samaritan Hospital, Philadelphia, claims that the cerebellum is the vulnerable area in childhood for pyæmic conditions to develop. In the Archives of Pediatrics for June, 1899, he lays stress on the following points as indicative of abscess in the cerebellar region of the encephalon: "Case of pyæma of the sinuses accessory to the brain or a history of trauma, with rapid loss of flesh and strength, rapid pulse and high temperature for the first 72 hours, followed by a decline in temperature and an increase in the rapidity of the pulse, with pronounced flexure of the extremities, progressive increase in the dilatation of the pupils, never, however, becoming fixed, half unconscious condition with uncontrollable restlessness, a peculiar indisposition on the part of the patient to obey requests made, the presence of sugar in the urine, slow respiration (eight to twelve per minute), tendency if standing to go toward one side and entire absence of paralysis." The presence of sugar, the author thinks, is one of the important symptoms as perhaps indicating the size of the abscess. The anatomical position of the white matter, which is always the primary seat of an abscess, in the cerebellum being very deep considerable pressure would be exercised by even a small accumulation of pus, so that the sugar in the urine would indicate more the amount of pressure than the size of the abscess.

Of course, when the diagnosis is made, trephining directly over the hemisphere and evacuation is to be done at once with the strictest antiseptic precautions.

Abscess of the Lung.

As a general rule abscesses of the lung substance proper are allowed to empty themselves through the natural channels, the bronchial tubes and trachea, however, abscesses wherever found should be opened if possible and opened freely.

Dr. B. van D. Hedges, of Plainfield, in the Archives of Pediatrics for June, 1899, gives the clinical history of a case of pneumonia, empyæma, and abscess of the lung all in one six year old boy.

The pneumonia which came first was a severe attack. Three weeks from the onset of the pneumonia, his respirations were 65,

pulse 170, temperature 104.8. An exploratory puncture in the eighth space posteriorly brought a dram of sero-purulent fluid. A portion of the seventh rib was excised and free drainage established with the escape of a pint of fluid like the first.

There was some improvement for a week but then the discharge ceased and the other symptoms grew worse, chills, sweating, temperature 105, expectoration very offensive.

A needle in the seventh space mid. axillary line brought thick creamy pus. About one inch of the over-lying rib was removed, the pleural cavity searched for any concealed pockets with negative results. An incision was then made along the path of the needle for a distance of two inches into the lung tissue, which allowed free escape to the pus. The patient was critically ill for ten days afterwards.

Large doses of strychnine hypodermically, whiskey and concentrated foods was the treatment. In three weeks from the time of the second operation there was decided improvement, and in six weeks the wound had entirely healed.

Three years later he is practically well and strong.

Tuberculous Glands of the Neck.

Dr. Laplace in a recent issue of the Journal of the American Medical Association says that tuberculous glands should be removed at as early a date as possible, provided they have not shown a tendency to subside under the ordinary treatment. Cures have been effected by the injection of an emulsion of iodoform in glycerine or a solution of iodoform and ether, but such instances are rare, and the processes are not free from danger, especially in the case of the deeper glands. At best, even if the process of tuberculosis stopped, a fibrous mass would be the result, retaining in a measure the appearance of a fibrous growth and constituting at any time a perfect cure. The patient can convalesce and regain health under the influence of general tonic and hygienic treatment. The conditions likely to be mistaken for tuberculous adenitis would be malignant lymphoma known as Hodgkin's disease. In this condition there is a general enlargement of the glands around the neck, and possibly in other portions of the body also, for it is a local manifestation of a pseudo-leukemia. Tuberculous adenitis should be differentiated from a lympho-sarcoma and secondary metastatic lymphoma, both of which are malignant and can be recognized as such from the rapidity of their development and invasion of surrounding tissues. Syphilis also manifests itself in the glands of the neck, but the process is slow and would involve a greater number of glands of both sides at the same time. Tuberculous glands, on the contrary, are likely to be limited in number, although they sometimes appear on both sides of the neck simultaneously. The growth is rather slow, but as it develops it appears more and more fixed. It is not necessarily accompanied by great pallor, nor does it give rise to much pain.

Must the Piano Go?

We hardly supposed that one would have the temerity to attack the piano as a cause of disease. The corset and the sewing machine are legitimate prey for the investigator and statistician, but we would draw the line in front of the piano.

However, Dr. Waelzhold, of Paris, has shown, or rather attempts to show, that piano playing is a cause of chlorosis and neurosis in young girls, according to the Tri-State Medical Journal and Practitioner.

Dr. Waelzhold bases his assertion upon the study of 2,000 cases, 1,000 confirmed performers on the piano and 1,000 who did not know the difference between the scale and a cotton platform. Among the first 1,000 who played the piano almost constantly, 600 or 60 per cent. suffered from nervous disorders of various kind and anemia, but of the latter 1,000 only 100, or ten per cent. suffered from any nervous disease. This all seems very convincing, but as Disraeli well said there are three degrees of mendacity, 1st, Lie; 2nd, —— Lie; 3rd, Statistics, and so the doctor's figures do not really prove anything. The objection to Dr. Waelzhold's conclusions is well summed up by Dr. Joseph Collins.

He calls attention to the fact that the two classes of girls must necessarily come from two very different classes of people. Those who did not play, were strong not because they did not play, but they did not play because they were of the masculine type of womanhood. Those who did, came out of the various conservatories of Europe where a girl can shatter her nervous system without ever seeing a piano.

We believe in the piano in the home as a moral force, uplifting, elevating; of course the everlasting practising of the scales is a rocky road to travel, but it leads to the mountain heights of beauty and harmony. Taken all in all, it is more likely that excessive piano playing by a beginner, will cause chlorosis and neurosis in those who perforce must listen, than in the player.

Antitoxin As An Immunizing Agent

The value of antitoxin as a curative agent in diptheria has been well tested by a number of competent observers, but very little real work has been done to determine the actual worth of antitoxin as a preventative of this disease. During 1898, Dr. Samuel S. Adams, of Washington, D. C., used the antitoxin in 422 cases, admitted to the Children's Hospital, reported in Archives of Pediatrics for June, 1899, to test its efficacy as a preventative remedy. The routine work in the hospital had been seriously interferred with during the past few years by occasional outbreaks of diptheria. Beginning December 1st, 1897, an immunizing dose was administered to every child in the hospital and to all new patients as they came in, regardless of any disease they might have at the time. The object of this was to determine: The effect of antitoxin in preventing the further spread of diptheria in the institution; the duration of the immunity; the effect upon the kidneys as indicated by the urine; the disagreeable sysmptoms produced or suppose to be produced.

In the list of diseases from which the patients were suffering we notice, 5 cases abscess, 9 of adenitis, 3 of appendicitis, 29 of bronchitis, eczema 10, 6 of enuresis, 32 of enteric fever, 18 of intermittent and 15 of remittent fever, 15 of keratitis, 1 of leucoderma, 2 of nephritis, 5 of purulent ophthalmia, 13 of osteo-myelitis, 11 of bronchopneumonia, 12 of lobar-pneumonia, 10 of rachitis, 3 of congenital syphilis, 5 of tinea capitis, 20 of tuberculosis, etc., and as the author states, there was ample opportunity to study any ill effects which the antitoxin might produce. Many of the patients were extremely ill when admitted, but the dose was given nevertheless. 100 units were given to infants, 250 to those between 2 and 6 years of age, and from 300 to 500 above this age. Of the 422 treated 17 or 4.28 per cent. contracted diptheria. The ages varied from 1 month to 12 years. The curative dose was given to these cases as soon as the diagnosis was made which was confirmed in all cases by bacteriological examination. The average duration of the immunity was about fifty days in the seventeen cases, the longest time being five months and 24 days, the shortest time eleven days; two of the seventeen cases died, or 11.7 per cent. The urine was carefully examined in all the cases, a complete analysis was made before and after giving the immunizing dose. Albumin was found in 21 cases before administration and the amount remained unchanged after giving the antitoxin. In one case albumin was found before but could not be found after the administration. In one case the little patient was in the last stages of chronic parenchymatous nephritis, very small amount of urine, urea very low and casts very abundant, general anasarca and extensive pulmonary œdema, in fact the case had been exhibited as hopeless, received 250 units and began to improve, urine and urea increased, casts diminished, anasarca disappeared, and while it is not claimed that the antitoxin had this effect it shows conclusively that it had no bad effect. Out of 420 cases no bad effects were noticed which could in any way be attributed to the antitoxin. The author concluded that the dosage was too small or more striking results could have been obtained. The average duration of immunity was the same as claimed by other observers. The larger the dose the longer the immunity. The immunizing dose has no injurious effect upon the kidney. The only pathological effect observed at all was in two cases that developed urticaria. Dr. Adams' experience should encourage other investigators, as he has plainly shown that it will do no harm even among children desperately ill and that its suspected injurious effect upon the kidneys is imaginative.

Not Liable for Use of Impure Vaccine.

A municipal corporation, says the American Medical Journal while enforcing a valid ordnance requiring citizens and residents of the city to submit to vaccination, is exercising a governmental power, and, the supreme court of Georgia holds, in the recent case of Wyatt vs. the City of Rome, is therefore not liable to a citizen who may sustain damage on account of the impure vaccine matter administered to him by one of the officers or agents of such corporation. To allow any citizen a right of action on account of injuries, real or supposed, that he may have suffered in the interest of the public good, the court says, would be to paralyze the arm of the municipal government, and either render it incapable of acting for the public weal, or would render such action so dangerous that the possible evil consequences to it, resulting from the multiplicity of suits, might be as great as the small-pox itself. Hence the wisdom of the law in exempting it from liability on such an alleged injury as one resulting from the negligent administration of impure vaccine matter by the officers or agents of a city while enforcing a valid ordinance. The right to prescribe regulations looking to the preservation of the public health, further says the court, is one of those sovereign powers that belong to the State. This

power can be delegated by the State to any of its sub-divisions of government, such as a municipality or a county, and in the use of it by such subdivisions they are in the exercise of a function purely governmental. When a municipality exercises a governmental power conferred upon it by the State, it is just as if the State itself were in the exercise of the function thus conferred. And it is upon the idea, as old as the English law—"the king can do no wrong" —that the sovereignity of a State protects it against suits by its subjects; no one having a right to hold it liable for any of its officers or agents, unless such right is expressly granted by the State itself. Among the precedents which have been established by courts of last resort that are apparently exceptions to this general rule, the supreme court of Georgia says it has been able to find none that would hold a city liable for any injury that may be sustained as the result of enforcing measures legally enacted for the promotion and preservation of the public health.

Sixteen Cleveland Homeopaths Publicly Adopt Allopathy.

We take the following from the American Homeopathist which is rather unusual reading for this class of journals.

The Cleveland Plaindealer for May 4, reciting the Commencement Exercises of the Cleveland College of Physicians and Surgeons (Allopathic) the night before, gives the following twenty-three names as graduates: E. D. C. Bayne, I. J. Biskind, Charles A. Bingham, M. D.; O. H. Boulee, M. D.; Henry C. Champlin, M. D.; George Y. Davis, B. S.; R. S. Evelyn, M. D.; W. M. Gregory, M. D.; Charles A. Hall, M. D.; W. H. Henninges, M. D.; George S. Iddings, M. D.; Martha H. Jarosch; William G. Meredith, M. D.; Orville T. Manley, B. L.; William Nuss, William C. Pardee, M. D.; R. C. Pease, M. D.; Arthur H. Perry, A. M., M. D.; William Snearer, LL. B., M. D.; William A. Tims, M. D.; Lloyd A. Trowbridge, A. M.; William R. Wall, Jr., M. D.; Robert W. Williams.

Of these, sixteen are ex-homeopaths, fourteen holding the diploma of the Cleveland homeopathic schools. Five were teachers in the homeopathic schools. Fourteen of these sixteen will register with the State Board as "R" (Regulars), and have already been asked to unite with the regular Medical Society. In the same paper appears an interview with several doctors. One of the new graduates speaking for himself and, possibly, also for his companion ex-homeopaths, says, that they have concluded it to be best to know how to practice legally that which they have been practicing without knowing how officially. The Dean of the homeopathic school thinks the step an evidence of bad sense, and one calculated to injure the seceders professionally. Also that his college does not approve of it. Well, hardly.

The hinting at this secession in the early fall by the American Homeopathist was characterized by interested parties, by those whose ox was being gored, as a slander, and an effort to discredit the homeopathic school. The present publicatson of the names, therefore, proves that we are right. So far as discrediting homeopathy or its honest schools is concerned, as we have said elsewhere and very frequently, and with much emphasis, we have never done so; we do not discredit the homeopathic school. We do credit the teaching of the homeopathic end in some of them. Henry Ward Beecher used to say: When a man falls asleep in my church I wake myself up. The fault is in me, not in the sleeper. The Hahnemannian Monthly, in its always courtly way, referring to the adoption of allopathy by some homeopathic recent graduates in the West, says that such recent graduate is not the best person to pass upon the truth and value of homeopathy. True. But among this lot of sixteen are five ex-teachers in the homeopathic school! Many hundred homeopathic diplomas are in existence bearing the names of these recently made-over into allopathic practitioners. There must be some other reason for their withdrawal from homeopathy, than the mere newness and untriedness of the thing; possibly ignorance of homeopathy; possibly something else.

Cleveland was almost from the beginning noted for its homeopathic trend, and in high places, too. Yet, since the lamented Nathaniel Schneider died, only a few years ago, fifty-two families on Prospect Street—the equal of Euclid Avenue—have gone over to the allopathic form of practice! His latest associate and successor was first to go. Among this lot of new allopaths is one ex-homeopathic teacher whom the late Dr. Nathaniel Schneider loved and trained and appointed his gynecological assistant and associate in the (then) Schneider (homeopathic) college. It has always been said that it paid a young man best in Cleveland to be a homeopath, until a very recent time. What has caused the change in public opinion? Why do our families, and our young and older practitioners, and our teachers flock to the old school standard? There must be a reason for this change. What is

it? And, now, consider these ex-homeopathic teachers, who have thus publicly avowed their disbelief in that which formerly they taught, and say at what time in their teaching-life did they begin to doubt that which they were teaching; and how many of the graduates from their teaching have that Parthian arrow sticking in their backs, and will in time, first by force of precept, and, now, by example, throw off their allegiance to the homeopathic school and join hands with the allopaths?

And yet it *is* so wrong for the American Homeopathist to speak of this great danger to us as a system of practice. It is treason to our best interests to take notice of it. We are injuring the cause. We are discrediting Homeopathy. It is nothing but a personal matter with this editor. He is getting even with somebody. His real duty lies in the direction of silence. The proper and loyal thing is to let other stampedes of homeopathic students, graduates, ex-teachers, and practitioners take place, until one fine avenue after another of this beautiful city has gone over block by block into the hands of our traditional enemy. No attempt should be made to show the cause of such defection lest we frighten away homeopathic students from Cleveland, and *that*, bless you, would hurt homeopathy a great deal more than to have them, later on, give us the laugh and walk over into old-school ranks.

No, by the Eternal! The American Homeopathist insists that it is the duty of the profession, first, to know what is going on, in order to be able to cope with the danger in time, and, second, to apply the proper correction. It is far better that the members of the household should correct an obstreperous young one than that the State later on hang him to a gallows tree. This thing has gone far enough. If the profession will not wake to its danger, we have done what we could to show it to them. Homeopathy is not dead—not by a large jugful! But many of its (homeopathic) teachers are—and don't know it! The proper salvation is a series of well-conducted funerals—of bastard teaching, and of hermaphroditic teachers!

Deformity in Pott's Disease.

Dr. H. P. H. Galloway, in the Canadian Journal of Medicine and Surgery, closes a valuable paper with the following suggestions:

Sufficient experience with the operation of forcible reduction of the deformity in Pott's disease has been accumulated to enable each surgeon to decide whether the procedure is or is not at present justifiable.

The theoretical dangers of the operation have not received much support in practice; enough, however, to demand that they be taken into account.

Calot reports better results and appears to be more hopeful than any one else.

We would be justified in performing the operation if we could be sure of ultimate good recovery without deformity or with greatly diminished deformity.

Satisfactory evidence that the ultimate result will be good is wanting, while the postmortem findings quoted are anything but reassuring.

Our knowledge of the behavior of tuberculous bone does not make us hopeful regarding the filling in of the gap created by the operation, and the admitted tendency of the deformity to relapse after correction increases doubt on this point.

Surgeons should cease performing the operation, and wait patiently until the ultimate results in a considerable number of the cases already treated have been determined; not condemning the operation in the meantime, but simply holding it subjudice.

As an exception to the conclusion just stated, cases complicated by paralysis which cannot be cured by other means, should, in the absence of contra-indications, be submitted to forcible reduction, as there is abudant evidence to show that the operation usually cures or improves the paralysis promptly. Very early cases with slight deformity may, perhaps, also be attempted.

The tendency to simplification of the original operation shows distrust for Calot's method, or points to its being unnecessarily radical. The method described by Goldthwait is simpler and more reasonable.

Puerperal Eclampsia.

According to Coover (Medical Standard) this matter is occasionally traceable to atmosphere influences, occasionally epidemics. In support of this theory he adduces instances of epidemic forms of the disease occurring in one tract a mile wide and another somewhat more restricted, extending from Harrisburg to Baltimore. He urges free bleeding in the beginning, in the case of plethoric, well nourished women, and, should this be futile, 40 to 50 grains of chloral and an equal amount of potassium bromide administered per rectum, and, if necessary, repeated every hour. Hypodermic injections of morphine are recommended in nervous cases in which albuminuria is absent, and, generally speaking, calomel, followed by a rapid purgative. Inhalations of chloroform, ether, etc., may prove effica-

cious, and in the intervals between attacks Bashman's mixture is considered an excellent blood tonic in conditions of quickened pulse and high temperature. Norwood's tincture of veratrum viride in 6 to 12 drop doses and tincture of digitalis in 10 to 20 drop doses are also mentioned favorably. Dr. Coover deprecates the use of morphine, save in neurasthenic cases with comparatively little uremia.

Criticism on the Whitehead or "American" Operation for Piles.

Dr. S. G. Grant (American Journal of Surgery and Gynecology). For a long time past I have had many patients each year who came to be treated for permanent stricture, incurable ulceration and unbearable pruritus as a result of non-union following Whitehead's and the "American" operations. The latter is simply a modification of the former, and should bear Mr. Whitehead's name.

The advantages claimed for it are as follows:

1. That it is the most natural method and is in perfect harmony with surgery.

2. Excision (in addition to its simplicity) requires no instrument not found in an ordinary pocket case.

3. It is a radical cure, and removes the peculiar pile-bearing area.

4. It is not more dangerous than other methods recommended for the removal of piles.

5. Pain is less severe than that following any other operation.

6. The loss of blood during the operation probably exceeds that of the ligature or clamp and cautery, but dangers of secondary hemorrhage are unquestionably less.

I offer in notation the following criticisms to the above claims.

1. Excision is not more natural, neither is it more in harmony with surgery than are other operations.

2. Instead of being simple, it requires longer time, greater ingenuity and the best instruments.

3. Granting it is radical, just as good results can be obtained quicker with less pain, fewer complications, and by less difficult operations.

4. It is equally dangerous to, if not more dangerous than, the clamp and cautery, to ligature; and is certainly more often accompanied by complications.

5. Bleeding is often profuse during the operation, and secondary hemorrhage is not lessened by it.

Excision is the operation par excellence when the lower two or three inches of the circumference of the bowel is made up of spongy angiomatous masses, accompanied by profuse bleeding. Here nothing short of the amputation of the involved area will give permanent relief.

On the other hand, because of the complications that accompany and the sequelæ following the operation, it should be discarded for the treatment of ordinary individual pile-tumors. Failure to get primary union is the principal difficulty, because of infection, tension on the sutures and the straining after anesthesia. When a good result has been obtained patients are able to get about in twelve to twenty days. When non-union occurs the membrane retracts leaving the sub-mucous tissues uncovered for an inch or more. Ulceration, stricture, and pruritus follow in rotation, and the patient is left a permanent invalid, and little can be done to alleviate his suffering.

Mr. Whitehead claims that once the pile-bearing area has been removed patients are exempt from piles thereafter. I have recently seen a man suffering from several large hemorrhoids who had been subjected to this operation several years ago. This demonstrates that the excision method is not more radical than either the clamp and cautery or ligature. In conclusion I will briefly enumerate my objections to this operation.

1. It is not suited for ordinary or bad cases of piles.

2. It is difficult and bloody.

3. Patients are detained in bed from six to fifteen days longer than after the clamp and cautery or ligature operations.

4. Owing to tension the post-operative pains are severe and may continue for several days.

5. Infection is frequent and terminates in a stitch or deep abscess and fistula.

6. Because of non-union ulceration, stricture and pruritus are common sequelæ.

7. The portion of bowel between the anus and the end of the retracted intestine loses its sensitiveness and there is also an absence of the normal secretions.

8. The nervous and mental state of these sufferers is pitiable to behold; many contract the morphine habit, while others "turn up" as chronic invalids in some sanitarium or asylum.

Early Diagnosis of Cancer of the Uterus.

Heitzman (American Journal of the Medical Sciences) states that hemorrhage, pain, and discharge are late symptoms of malignant disease of the uterus, which are often not marked until after the inoperable stage has been reached, hence the importance of

recognizing the presence of carcinoma before these conditions appear,

He calls attention to a valuable aid in diagnosis which he first published twenty years ago.

If a 10% solution of sulphate of copper be applied for a minute or two, on a pledget of cotton, to a suspicious erosion of the portio vaginulis, the surface will become quite blanched, if it is a simple ulceration, a thin bluish-white coating will form, without hemorrhage. By repeating the application at intervals of three or four days the erosion will be entirely healed in about two weeks, by an ingrowth of squamous epithelium from the edges of the raw surfaces.

In carcinomatous cases, on the contrary, a light application of copper will cause bleeding, which can be checked by ferripyrin or perchloride of iron.

The application should be repeated again after a few days. If the area of erosion diminishes, becomes less hyperemic, and surrounded by a ring of newly formed squamous epithelium, the suspicion of malignancy was probably unfounded. But if the erosion should again bleed, more freely than before, the diagnosis of beginning carcinoma is almost certainly established.

In order to confirm the diagnosis a section of the tissue should be cut from the diseased portion and submitted to careful microscopical examination. By continuing the application a positive diagnosis of malignancy can be almost certainly established, if a single bleeding spot persists after the rest of the raw surface has been healed. When cancer of the endometrium is suspected, a sound should be introduced into the uterine cavity and swept carefully over the surface of the interlor, in order to detect prominences of disease-affected portions of the mucous membrane. If no bleeding follows the withdrawal of the instrument the disease is in all probability a single hyperplastic endometritis.

If hemorrhage occurs, a cotton applicator saturated with a 10% solution of copper is applied to the surface of the endometrium, when the bleeding will probably at once cease, if the case is not malignant, and a few applications bring about a cure. If, however, hemorrhage is increased at each application the presence of cancer should be suspected, and the curette used to confirm the diagnosis. A microscopical examination by a competent pathologist will get a positive result.

A New Sanitarium at Asheville.

Dr. Karl von Ruck is building a new sanitarium for health seekers in the town of Ramoth a short distance beyond the Asheville city limits. The building will be large and commodious. It is hardly necessary to say that every modern improvement will be used in the construction of this new sanitarium. As we know, Dr. von Ruck has one sanitarium, the Winyah, in successful operation now, he will manage both institutions, and the necessity for a larger building is the indication of the doctor's success in the treatment of pulmonary troubles. The new building will be ready for occupancy October 1st, 1899, and any reasonable number of patients can be very comfortably taken care of after that time.

State Society Meetings.

The Illinois State Medical Society met at Cairo, May 16th to 18th, a city of some 18,000 people who entertained the members right royally. The Woman's Club took a prominent part in the entertainment of the visitors.

A river excursion and a banquet were among the list of entertainments. It is reported that the feast of reason and flow of soul at the banquet was not wholly inspired by artesian well water.

The business meetings were well attended, the discussions lively and intelligent. The Medical Standard has well printed cuts of the officers of the Society. Dr. Harold M. Moyer, of Chicago, is President; Dr. E. W. Weis is Secretary.

Dr. Moyer was graduated from Rush Medical College in 1879. For the past eight years he has restricted his work to nervous and mental diseases, being for several years professor of physiology in the Rush Medical College. He was at one time editor of the Chicago Medical Journal and Examiner, about four years ago he founded the monthly publication called Medicine.

The fifty-third annual meeting of the Wisconsin Medical Society was held at Oshkosh, May 3–5, 200 members were present and 76 new members were taken. A number of well prepared papers were read, and some of them freely discussed. It seems that our Wisconsin brothers love to read papers better than our Tarheel doctors do, as a resolution was offered in the last meeting to cut down the number of papers read, and it seems the program committee had to work hard to keep down the number, 43 were presented anyway; in 1898 there there 93, in 1897, 94.

Next year the committee propose to further cut the number of papers to 30.

Dr. W. T. Sarles, of Sparta, was elected President, Dr. C. S. Sheldon, of Madison, Secretary.

The next meeting will be held in Milwaukee.

The Iowa Medical Society held its forty-sixth session at Cedar Rapids, May 17–19. 105 new members were taken in at this meeting and the attendance was 500—a good meeting certainly.

This State Society is the same age as the Medical Society of North Carolina.

The Kentucky State Medical Association met in Louisville May 17th, and continued in session for three days. A paper on "Charlatanism" by Dr. Vance, of Louisville, was very much enjoyed by those who heard it.

Dr. Pusey reported 272 cases of Intubation in Diphtheria.

Dr. Wm. Bailey, of Louisville, was elected President; Dr. Bailey, of Stanford, was continued as Secretary.

The Use of Vaginal Examinatinos and Vaginal Douches in Normal Labor.*

In the Medical Record, September 17th, 1898, Shears looks upon these measures with disfavor. The editor of the St. Louis Clinique comments on Dr. Shears' article as follows: Dr. Shears takes the ground that frequent examinations during labor are a frequent cause of infection through the unclean hands of the physician. This ground is well taken. He also claims that the douche administered before labor begins, or during its progress, washes away the normal protective vaginal secretions, leaving the membranes of vagina and uterus particularly susceptible to contagion. This is a rational view, since the absorptive capacity of these parts is certainly increased by the application of hot water. If a douche leaves the parts in a condition favorable to the absorption of germs, the digital examination is still more dangerous than when made while the surfaces are covered with their normal secretion. Then, again, his claim that these examinations are generally unnecessary is warranted by the fact that once the presentation is known frequent examinations retard, rather than hasten, the progress of the labor. Furthermore, that in multipara they are unnecessary, and that alone is sufficient reason for not making them.

The doctor also claims that douches after labor are still more injurious, as at this time many slight abrasions and lacerations may exist, and if the exuding blood serum be washed away these are more exposed to infection from without. If, then, the labor being normal, and no extensive lacerations causing hemorrhage have occurred, no excuse can be offered for making vaginal examinations, as the fingers of the examiner, and even the air entering the vagina, may carry the poison of infection.

These suggestions are exactly in line with the latest ideas regarding obstetrics, and should be heeded by those who are just entering upon the practice.

*Medical Standard.

The Diet of Dyspeptics.

The Medical Times editorially claims that the main factor in the treatment of this class of cases lies in proper nourishment. These patients, who have abstained from most kinds of food for years, must now learn anew to eat. Their stomach and intestines very quickly adapt themselves to this new condition, First and above all, it is of importance to increase the quantity of nourishment; second, to provide a sufficient variety of food.

In order to improve nutrition, two articles of food, which hitherto have often been avoided by layman as well as physicians, play an important part. I mean bread and butter. Bread forms one-third of the total amount of ingested food in health, and besides having a nutritive value serves the purpose of increasing the flow of saliva during its mastication. It also creates an appetite for other food.

Butter not only improves the taste of various kinds of food, but is also in itself a nutriment of the greatest importance. The great number of calories which butter contains (one hundred grammes give eight hundred and thirty-seven heat units, while the same amount of bread develops about two hundred and seventeen) shows this in the clearest manner. Another advantage which butter presents is that its volume is only about one-third that of bread. A patient taking about one-quarter of a pound of butter a day receives therewith more than one-half of the heat units required. This quantity of butter is well borne by most of the patients.

As nutrition plays the principal part in the treatment of these patients, it will not be amiss to give a few hints with regard to its management. To begin with, it does not appear advisable to permit patients who have abstained for a long while from the coarser varieties of food, everything at once. This abrupt change may at times be the cause of various unpleasant symptoms; therefore, it should be accomplished gradually. At first give, besides milk, gruels and thickened soups, eggs beaten up in milk, etc. A few days later begin to add to this bill of fare zweiback or crackers with butter. Then permit meat, the white

of chicken and well-scraped beef; next mashed potatoes, still later give wheaten bread, baked or boiled potatoes, soft-boiled or scrambled eggs, oysters; at last allow vegetables and fruit.

An essential point with regard to nutrition is punctuality in taking of meals. In most of these cases, in which a gain in weight is of great importance, frequent meals (five or six daily) will be advisable. Although it does not appear advantageous to prescribe for the patient the quantities of the various foods in exact weight (grains or ounces)—as by so doing they are too easily reminded of their ability to digest this or that quantity and not more—it is nevertheless of value to mention approximate figures by which they may be guided or below which they shall not go.

Xeroform in Army Surgery.‡

During the Cuban war I had the opportunity to employ Xeroform in a great number of wounds, occasioned both by bullet and by steel. Bullet wounds, first cleansed by means of abundant irrigations with a 1:1000 sublimate solution, taking care to reach all their recesses and sinuosities. Then I applied a thin layer of powdered Xeroform at the points of entrance and exit of the projectile, and covered both with sublimate gauze and carbolized cotton. The dressing was only changed after it had become saturated with discharge. I obtained cicatrization in the shortest possible time, and without suppuration. I irrigated sword wounds in a similar manner, satured them, covered the incision with a layer of Xeroform, and applied a bandage. In this way I obtained cicatrization by first intention in every case, and without the appearance of any accident or complication. The time required for the process varied between one and three weeks, in accordance with the size and the depth of the wound. This is an extraordinarily short time for the climate of Cuba.

For contused wounds, with loss of substance, in which approximation and suturing of the margins was impossible, the time required for healing under the Xeroform dressing was longer (36 days). But the lesions remained dry and aseptic after the first dressing; they became covered with healthy granulations in a very short time; and I never noticed a single drop of pus or the slightest irregularity in the process during the entire time of observation. Soft, spongy, moist and exuberant granulations never occurred under the Xeroform dressing; it is notorious that they often happen with iodoform dressing, and have to be removed in the usual manner.

Xeroform did me very valuable service when large numbers of wounded had accumulated, since it dried up the moisture secreted from the exposed surfaces, and sterilized them. I could thus delay treatment, when unavoidable, for from three days to a week without fear of a secondary infection of the traumatic lesions. I had no occasion to use Xeroform upon the battle field itself; but I made careful observations in the hospital to determine whether the drug really fulfilled all the indications for a dry dressing, which is the easiest and most practical treatment at the front. I selected three cases of gun-shot wound in which there was no damage of important organs, and which had just been brought into the hospital. I cleansed and dried the accessible portions of the wounds with pledgets of cotton, dusted Xeroform upon them, and covered them with cotton tampons impregnated with Xeroform, wrapped in gauze, and again powdered with the drug. The tampons were kept in place by a dressing of carbolized cotton and sublimate gauze, which in one case was allowed to remain in situ for two, and in the others for three days. I had the satisfaction to find all the wounds entirely aseptic when the dressings were removed. This is practical proof of the fact that this simple Xeroform dry dressing can be employed upon the battle field itself to keep wounds aseptic for from two to three days; a length of time more than sufficient for the removal of the patients to the hospitals. Finally I can testify that I never saw any symptoms of intoxication of the general system, or any local changes that were due to the employment of the Xeroform. My observations entitle me to draw the following conclusions:

1. Xeroform is a powerful antiseptic for wounds, and is capable of being of the very greatest service in military surgery.

2. It absorbs the secretions from the bleeding surfaces, sterilizes them, and renders the wounds absolutely dry and free from the germs that are capable of causing secondary infections.

3. Since the very simple dry Xeroform treatment above detailed maintains wounds aseptic for 48 hours and longer, it is absolutely irreplaceable for first treatment on the battle field and during the accumulation of patients in emergencies in hospitals deficiently supplied with personal. For it permits postponement of the treatment without any danger to the patient.

4. In wounds accompanied by loss of tis-

‡Dr. Emilio P. Noguera, Abstracted from Revista de Medicina y Cirurgia Praticas, Madrid, April 25, 1899.

sue it favors cicatrization by the small, firm, and regular granulations that it promotes, and it never causes the appearance of the soft, spongy granulations that so often follow the employment of other antiseptics, more especially iodoform.

The Story of a Notable Picture.

One of the most important and admired pictures displayed in recent years at the National Academy Exhibitions is "The Country Doctor," by Mr. W. Granville Smith.

This fine canvas won warm praise both from the critics and the public, and was one of the chief attractions of an exhibition for which more than twice the usual number of pictures were offered, and whose walls were crowded to the utmost limit, so great was the pressure for space. Under such circumstances the standard of judgment is very stringent, and only a high order of merit secures consideration for a picture. Especially difficult is it for a large canvas to win the coveted honor, for each big picture shoulders out several small ones, and the opposition to big pictures is therefore intense. For that reason it is an extraordinary honor to have a large picture hung in an exhibition where the space is sufficient for only one-fourth of the applicants.

Mr. Granville Smith's "Country Doctor," a big canvas, four feet by six, has won this distinction, and his place as one of the "coming men" among the younger American artists is thereby assured.

The artistic merits of this notable picture are certified by its place of honor in the chief American art exhibition, its power of appeal to human sentiment was evidenced by the presistent attention it attracted, touched by its reality, its homely humanity, its suggestion of pathos.

"The Country Doctor" is a vivid portrayal of a familiar episode—a furious winter night tempest, a long struggle through drift and storm at duty's call, an exhausted old doctor struggling wearily forward, a fatigued horse shrinking in the blinding snowblasts, an anxious mother eagerly waiting the longed-for relief. From the porch of her humble country home she peers eagerly out into the storm. The lantern she holds above her head cuts a feeble path of light through the gloom, along which the doctor plows his way to shelter.

This strong and beautiful work, presenting a phase of a doctor's life, has been purchased by us at the National Academy for $1,000. It is our purpose to exhibit the original at the various assemblies of physicians held from time to time throughout the country, and also to reproduce the picture in exact fac-simile by lithography, of a size suitable for framing. The subject is of uncommon interest, especially to physicians, a fit campanion-piece to the famous painting by Luke Fildes entitled "The Doctor," which we reproduced and presented to physicians sometime ago. We shall be pleased to send a copy to any member of the medical profession on receipt of 10 cents to pay mailing expenses.

It is now in press and will be ready for distribution in the late summer.

The Arlington Chemical Co.
Yonkers, N. Y.

This picture was exhibited at the meeting of the American Medical Association in Columbus last month, and was the object of great admiration.

The Surgical Treatment of Bright's Disease.

Dr. Ferguson, in the Medical Standard, says: Nephritis so far is purely a medical subject; that its surgical treatment is not mentioned in the various text-books on surgery; that the inflammatory conditions spoken of in them are pyelitis and perinephritis, and that so-called surgical kidney is within the range of these as well as various other forms of suppuration in and about the kidney; and that the treatment for these has been nephrotomy and nephrectomy until quite recently, when Kelly introduced irrigation of the pelvis of the kidney for pyelitis. Nephritis or Bright's disease has an important surgical relation, and I predict that this new field will be the means of saving many a kidney from partial or total degeneration, often mitigating suffering and saving lives. The medical aspect at present of nephritis is a very sad one. The various pathological changes are well known, but the treatment for these is everything but satisfactory. The best authorities on internal medicine admit that medication is almost invariably useless. The treatment consists largely in seeking a California climate. It matters not what the cause of the nephritis may be, whether it is due to cold, burns, skin affections, infectious fever, contagious diseases, specific ailments, pyogenic organisms, chemical toxications, pregnancy, or what not, circulatory changes are the very first to occur, always causing vascular engorgement and enlargement and intracapsular tension of the kidney, and the secondary changes are epithelial. It is well known that certain blood pressure within the glomeruli and the activity of kidney epithelium accomplish the normal secretion of urine. This

is the accepted view. Cohnheim has shown renal epithelium is extremely sensitive to circulatory changes, and that compression of the renal artery for only a few minutes causes serious disturbance, as mentioned by Osler.

CONDITIONS OF RECOVERY.

It is wonderful, therefore, that an inflamed kidney ever recovers, and it no doubt does so on account of its great vascularity, abundant nutrition, and the wonderful sources of drainage it has through its many uriniferous tubules. We are oftimes surprised to find at autopsies the small amount of kidney tissue that had sufficed to carry on excretory functions during life. We also know that many a person lives in apparent perfect health with but one kidney. If, therefore, nephritis can only be arrested so as to restore to health but a portion of the kidney, just sufficient to carry on even a small portion of the excretory functions allotted to it, a great advance will have been made. This, I feel convinced, can readily be done by judicial surgical interference in properly selected cases and certain stages of the disease. The general surgical principles which we apply to control inflammation in other parts of the body, should, as far as possible, be directed to the inflamed kidney. First, remove the cause, if possible; second, keep the inflamed part at rest; third, reduce the local blood pressure; fourth, prevent access of fresh etiological agents; fifth, hasten absortion and aid resolution; sixth, relieve tension, and, seventh, drain the inflammatory products. All these indications for treating inflammation, with the exception of the two last, are in nephritis well carried out by internal medication and the general management of the case. If an inflamed kidney were situated beneath the skin in the loin where it could be more easily examined and explored we would have no hesitation in recommending and employing bold surgical treatment when clearly indicated. The tension, threatening necrosis, molecular destruction and obstruction to excretion by the kidney would be relieved by aspiration, puncture, scarification, free incisions, thorough drainage, etc., as is carried out elsewhere.

ADVANCES IN KNOWLEDGE.

It is now many years since the older surgeons opened kidneys expecting to find stone, but were rather chagrined at their error in diagnosis. I venture to say that every surgeon of large experience has committed this error, but none of them, as far as I know, have made a complete study of the condition of the kidneys in these cases. The postoperative diagnosis of these is usually put down as nephralgia. It was, however, pointed out by the more observant surgeons that the albuminuria, the hematuria, and local tenderness and pain, often subsided after the operation. They were probably cases of nephritis and were not recognized as such at the time.

Another class of cases that has come under surgical treatment, and from which important lessons may be learned bearing on this subject, is that of floating kidney. There is no doubt in my mind that many of these tender and painful floating kidneys are cases of unrecognized nephritis.

The following two cases were sent from a distance for diagnosis and treatment after internal medication, rest, etc., proved of no avail. These two cases were operated upon, the kidneys exposed, punctured, capsules peeled off in part or in whole, and the parents symptomatically cured.

CASE OF CURE.

Case I. Nephritis or Bright's disease, caused by exposure to cold; pain persistent over left kidney with severe exacerbations for the last tnree years, incapacitating her for work for the last three months, urine contained no albumen at any time, but was scanty, hyaline casts were present in one specimen of several examinations, kidney explored and decapsulated, immediate relief from pain afforded, and patient walked out of the Post-Graduate Hospital symptomatically cured on the twenty-second day after operation.

This patient, Mrs. M., is of Irish extracand presented herself complaining of pain in the region of the left kidney, and dizziness. She was 37 years of age, weighed 250 pounds, her occupation was that of housewife and housewoman. Present illness began three years ago last December, when she felt the pain in the region of the left kidney for the first time. This pain has been constant with exacerbations in that locality ever since. She has been able to attend to her duty until within the last three months, since which time she has been incapacitated from doing anything whatever. During the exacerbations the pain would radiate to the back and down the inguinal region. The spells lasted for two or three hours and would be brought on by exertion, and had to be relieved with morphine.

The previous illness and personal history are insignificant. Since her pain began she has been pregnant twice, carrying one child to full term, and miscarrid six months ago, after which she was curetted to stop the flow of blood, but the pain in the kidney was never relieved, nor increased by these two pregnancies. The

family history is fairly good. Her mother, however, died of dropsy at the age of 61 years. She has five brothers all in good health, except the youngest, who is 28 years of age, and has consumption. Physical examination shows a stout, well nourished woman, weighing 250 pounds, florid complexion. heart normal, pulse 86, full and strong, temperature 98.5, respirations 18, tongue clean, appetite fair, digestion good, bowels inclined to be constipated, some bloating, especially during the exacerbations of pain, abdomen very fat and flaccid, no tumors could be felt, all abdominal organs, except left kidney, normal to touch, pelvic organs normal, the right kidney not tender, but the left extremely so on pressure, and deep pressure or prodding brings on an exacerbation or an attack of pain which lasted for nearly an hour, the urine is small in quantity, 24 ounces in 24 hours, clear, and of dark amber color when fresh, but on standing a few hours a deposit of urates and phosphates occur. In six examinations of the urine before operation the specific gravity was between 1025 and 1026, acid reaction, no sugar, no albumin found at any time, no germs, no blood and no pus. In one examination a few hyaline casts with uric acid crystals were found. She was observed for two weeks in the hospital before operation. No diagnosis was made, but a stone in the kidney was suspected, and exploration advised.

Operation and Operative Findings.—An oblique incision seven inches long was made below the left costal arch, cutting through all the structures in the usual manner until the kidney was exposed. The fat being removed, the peeled off capsule of the kidney was sutured to the lumbar fascia on either side of the wound, thus suspending it in the lumbar region. A large gauze drain was inserted at the posterior angle of the wound; the muscles sutured together with chromoform catgut, the skin with silkworm gut, and the wound dressed and the patient put to bed. Kidney was enlarged, five inches long and two and three-quarter inches broad by actual measurement, and felt thicker than the normal, displaced somewhat downwards and inwards and encased in an enormous mass of fat. The capsule over the vertex being split, cortical substance protruded, clearly demonstrating the presence of intracapsular tension. The capsule was thicker than normal and nonadherent except about the center of the kidney on its anterior surface, where it was firmly attached. No bleeding occurred upon peeling off the capsule except at the point where it was firmly adherent. The kidney was explored by means of a blunt straight needle in various directions, from which bleeding very freely took place, but no stone was detected. The pelvis of the kidney and ureter were then palpated, but nothing abnormal detected. As no diagnosis was still made, I removed a small section from the cortex of the kidney at about its middle and had it examined in Kleb's laboratory, a report of which is here appended, and the case proved to be one of nephritis.

Progress.—Tne patient stood the operation well. With the exception of complaining of pain in the wound, she had no subsequent inconvenince, no shock manifest. There was immediate relief of the chronic pain in the kidney; pulse 80; temperature 100 eight hours after the operation, during which time she had one dose of strichnia and one dose of codein. In fifteen hours the urine was drawn off with catheter; the quantity the first twenty-four hours was twenty-two ounces, and contained blood. On the third day there was a rise of temperature to 103, pulse 98, and respirations 25, which was due to the gauze in the wound preventing free exit to the enormous amout of blood serum pouring from the wound. This being rectified and a rubber drainage tube inserted with gauze, the temperature immediately subsided. She remained in bed for nearly three weeks; the wound closed to a wish, and on the twenty-second day she walked out of the hospital symptomatically cured. Her pain, tenderness and dizziness were completely relieved as the result.

Pathological Examination.—The connective tissue growth is not extensive; the lining epithelium of the tubes is more implicated as in chronic parenchymatous nephritis. The lining epithelium of the convoluted tubules shows cloudy swelling, and there is some small cell infiltrations in some parts of the kidney, indicating that the inflammatory process is still existing. The epithelia of the glomeruli are nearly lost, some of the glomeruli consisting only of a homogeneous mass. Capsules of Bowman thickened, tubules with atrophic epithelium present, dilated tubules, desquamated epithelium in some of them, hyperlastic connective tissue around others. Pathological diagnosis: "Interstitial nephritis with cloudy swelling."

Case II. Nephritis (Bright's disease). Chronic pain over the right kidney for two years with acute exacerbations confining her to bed for the last two months. Addicted to morphia for the relief of pain, taking from two to eight grains in twenty-four hours. During the last eight months there has been a daily rise of temperature, chills, etc., urine contained no albumin, a

few coli bacilli and staphylococci present, kidney was decapsulated with immediate relief of pain and fever, patient left hospital on the thirty-fifth day after operation symptomatically cured. A small section about the size of a bean was removed from the cortex of the kidney for microscopical examination.

Mrs. W., presented herself, complaining of chronic pain in the right kidney, daily return of fever, and morphine habit. She is 26 years of age, married, American, health was good until 1897, when she was taken with pulmonary hemorrhage, which was not severe, and has never returned; three years ago had a miscarriage. In August, 1897, a trachelorrhapy was performed, which was not successful, suppuration having occurred. Immediately thereafter she was very ill with high fever and pain in the right kidney for the first time. Ever since this time she has been troubled off and on with pain in the kidney and with a pyrexia ranging from 99 to 104. In 1898, operated on for biliary culculi successfully, removing one gall stone and obtaining union of the wound by first intention. Tenderness and pain in the right kidney still persisted, and the fever was not abated but for a short time after the operation. A second operation was done to liberate adhesions which might be the cause of her trouble. The wound of this operation also healed kindly, but she was not relieved of her pain and pyrexia. The last eight months she has been treated for malaria without any benefit. The only thing in her personal history worth mentioning is unhappy relations with her husband. This gave her considerable worry. Her family history is good.

Physical Examination.—Upon entering the hospital a scar was found over the gall bladder; the abdomen generally tender, more especially over the right kidney, which is appearantly slightly enlarged, and could be felt by palpation, deep pressure over the right kidney unbearable, uterus and adnexa movable, but tender, cervix lacerated; the other abdominal organs were apparently normal, pulse 80, temperature 100, respirations 18; twenty-three ounces of urine passed in twenty-four hours, specific gravity 1020, acid in reaction, no albumin, no sugar. A few pus corpuscles, a few casts and amorphous urates were found, the urine teeming with microorganisms, coli bacteria, phagocytosis of very fine bacilli. Diagnosis: Septic kidney.

Operation and Operative Findings.—A transverse incision exposed the kidney. The fatty capsule was very scant and bled freely on removing it. The fibrous capsule, several times thicker than normal, was adherent to nearly all the anterior surface of the kidney and nonadherent to the rest. The enlarged kidney measured nearly five inches long and was thicker than normal, of darkish hue color. The capsule was split and peeled from two-thirds of the kidney without causing any bleeding. The kidney was now explored with a blunt needle from which punctures it bled freely. The pelvis of the kidney was now opened through the kidney substance, but no pus, nor stone found. There was nothing discovered except an enlargement and an engorgement and a pathological feel of the kidney. Capsule was sutured to the lumbar fascia on both sides the kidney and wound drained with a rubber tube and gauze. The muscles were sutured together with cat-gut, the skin was silkworm gut, the wound dressed, and patient put to bed; patient stood the opeartion well, suffering very little shock or inconvenience. The temperature never rose above 100 after the operation, and there was an enormous discharge from the wound necessitating frequent changing of dressings. Only two doses of morphine of gr. $\frac{1}{4}$ each time were given after the operation. Ever since the operation she has complained of no pain, nor urine tenderness in the region of the kidney other than that which is usually found at the seat of operation, contained, in addition to the above-mentioned ingredients, a considerable quantity of blood the first few days. The quantity of urine increased till about the eight day, when she passed thirty-seven ounces of urine. The last examination of urine was made on February 10, four weeks after the operation; specific gravity 1020, no albumin, no sugar, acid in reaction, urea 2.1 per cent., some microorganisms, the same as in the examination before the operation, but not nearly so abundant.

The section of kidney shows the picture of an interstitial nephritis with much proliferation and hyperplasia of connective tissue, areas of which consist entirely of this connective tissue growth with obliterated or waxy glomeruli. Between these portions are found islands of partially changed kidney tissue in which there are atrophic tubules with a desquamated epithelium. Flattened epithelial lining in tubules of diminished caliber, and some cloudy swelling in the lining of the ephthelial cells. In some of the tubules hyaline casts are found. The capsules of glomeruli are thickened and their connective tissue with many nuclei is arranged in concentric layers.

Indicia.—It appears to me that the following prominent symptoms and signs be-

speak a condition needing exploration of the kidney: (1) Persistent pain; (2) persistent tenderness; (3) persistent hematuria; (4) persistent albuminuria; (5) persistent pyuria; (6) persistent troublesome abnormal mobility; and (7) persistent enlargement.

Remarks.—It is too early to come to positive conclusions as to the ultimate results to be obtained by surgical exploration of cases of nephritis. But of one thing I am certain, that is, that nephritis (Bright's disease) has a valuable surgical relation. This line of work is in its infancy. Let us use it to relieve suffering. If we can help it let us not sacrifice organs and lives on the infamous altar of pseudoconservatism, nor be too dastardly cowardly to recommend and put into practice our honest convictions founded on knowledge obtained by accidental experiences or otherwise, but nevertheless purely scientific. The progress of surgical art and science is too liable to be attacked by the elated egotist and pessimist who dramatically says: "I am the Norns of surgery."

Prophylaxis of Infantile Diarrhoea.

Infantile diarrhœas are all so closely related that their prophylaxis and, to a considerable extent, their treatment also, may be considered under one heading. First in importance is the giving of proper food—mother's breast at proper intervals and in proper quantity. It is very seldom that a mother is really disqualified to suckle her baby, and the physician should lay bare to her in no hesitating manner the fearful responsibility she assumes in refusing to nurse her own baby and the dangers to which it will be subjected even through a wet nurse. If she will not or cannot nurse the baby the best that can be done is to secure a wet nurse whose baby is as near the age of her own as possible. Next in importance to its being breast-fed is that the baby have its food at regular stated intervals and not be put to the breast every time it cries. It should be put to the breast every two, three or four hours, according to age. A healthy baby nursing a healthy woman may be allowed to satisfy its appetite as, in this as in all things else, nature is the best judge. If the baby has to be fed by the bottle the condition of the bottle itself is of equal importance to that which goes into the bottle. If the bottle and nipple be absolutely sterile it will matter but little whether you use A's or B's food or milk fresh from the cow. I prefer the latter when the parents are able to keep the cow in stall for that purpose. I use very little sugar in the milk and not more than one part of water to four parts of milk and as rapidly as possible leave all water out. It is important that the food be not changed when it is agreeing with the child.

While writing this article the author was called to a baby five moths old, born at the eighth month and bottle raised, which was made quite sick by changing for one day only from undiluted cows' milk to a well known proprietary food. Many families are not able to afford a sterilizer, but it may just as well be secured by boiling for half an hour after each time it is used and then placing in the oven of the stove and baking half an hour, cork tightly and put away in a clean place. The baby shoud have a cool bath every day and allowed to live in the open air as much as possible and preferably in the country or small town.

Another cause of summer diarrhœas in infancy, which is often overlooked, is too much clothing. Many mothers kill their babies by over-dressing them. The little fellows have to swelter through the day with half a dozen thicknesses of clothing on and at night these are all removed and a light night dress put on. No wonder the baby has cholera infantum before morning! Babies born in summer, in my practice, are never allowed to wear flannels until cold weather sets in. A light shawl thrown about them will keep the temperature high enough for a day or two, then nature will attend to it.

H. R. Costan, M. D.,
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Tolerance of Creosote.

Burlureaux has demonstrated the extreme variability of individuals in their tolerance of creosote. Since the greatest benefit is to be derived from the drug by giving the maximum dose which the patient can take, this question of individual susceptibility or intolerance becomes a very important one. In a work just published by Robert Simon, the phenomena of intolerance, which it is well for the prescriber to know, have been described. They include, among others, the taste of creosote in the pharynx, sweating, rigors, vertigo, hypothermia followed or not by hyperthermia, black urine, and a choleriform state. In some subjects there is permanent lowering of the temperature during the whole course. The taste may persist for a long time and return after eating, so that the subject thinks he has swallowed more of the drug by mistake, perhaps with the food. The following conclusions are given: (1) All tuberculous patients who cannot tolerate creosote in small dose

are almost irremediably lost,even if the disease is of recent date, &c. If beginning cases with few signs are subjected to a creosote treatment, it is surprising how little resistance they often show. Here the intolerance for creosote is an important element in prognosis, since others are absent. (2) All patients who stand creosote well, although the appearances may be unfavorable and the lesions advanced, have good chances of benefit, especially if the tolerance is on the increase. (3) If, on the contrary, after having borne a large dose, a patient shows progressive (and not passing) intolerance, the prognosis is made worse, even if other signs of losing ground are not pronounced. Transient intolerance may occur from accidental causes.

Pernicious Malarial Fever.

Under the above caption Dr. R. E. Zachary, of Wilmington, N. C., publishes an article, in the June number of The Charlotte Medical Journal, in which he says: "At one o'clock, P. M., I gave him (the patient) per rectum, sixty-five grains of quinine in solution." He also says, "strychnine sulph., gr. 1-50, every two hours for six hours, hypodermically." Now, why did the doctor not give his quinine with his strychnine, hypodermically. It was equally as important to get the specific effects of the former quickly and rapidly as it was the latter. One-fifth or one-fourth of the quinine given would have been more rapidly effective and certain in results; there would have been no delay from slow and uncertain absorption through a congested and sluggish portal circulation; no danger from rejection of the quinine enema, and the mind of the medical attendant would have been relieved by the substitution of a rapid, definite, certain line of practice for slow, indefinite, and uncertain one.

DR. J. D. SMITH,
Paducah, Ky.

Relation of the Blood, Urine, and Gastric Contents, in Stomach Diseases.

Dr. J. A. Lichty makes the following statements, based upon an examination of 111 cases (Medical Standard).

The average hemoglobin percentage is slightly above the normal in cases of hyperchlorhydria, and slightly below the normal in cases of hypochlorhydria.

The average hemoglobin percentage is higher in cases of gastric achylia than in those of hyperchlorhydria.

The average number of red blood corpuscles, though differing slightly in the groups of cases of hyperchlorhydria, hypochlorhydria and gastric achylia, nevertheless vary as the hemoglobin varies.

The average specific gravity of the urine, aside from its being highest in the cases of hyperchlorhydria, does not sustain any definite relation to the blood and the gastric contents in the various forms of disease of the stomach.

The study of the degree of acidity of the urine in the various groups has not revealed any definite information.

While in averaging the cases, there may be a certain relation between the blood and the gastric contents, yet, in each group, individual cases show without a doubt that there is no such definite relation as will enable one to determine the condition of the gastric contents from the study of the blood and the urine alone.

The absence of any definite relation between the blood, the urine, and the gastric contents, is not peculiar to diseases of the stomach.

Dr. Lichty states further that in diseases of the stomach the examination of the case is by no means limited to diagnosis, but should be thorough enough to indicate the course of treatment and prognosis. The determination of "gastric dyspepsia is comparatively easy, yet the procedure to be adopted depends largely upon acquaintance with the chemistry of the gastric contents, the blood, and the urine." General nutrition should receive due attention, as well as the condition of the other organs, and especially the muscular capacity of the stomach. Essential data may be derived from a study of the blood and the urine, which may aid us in determining the state of nutrition, not that this careful examination will indicate the course of treatment, but that it will give evidence of the success attending the procedure adopted.

Is Insanity on the Increase?

This seems a very simple question to answer in the affirmative if one has lately visited our public institutions for the care and treatment of such cases. We have hardly room to put them and in every report, from the officials in charge, is contained a request for more room. But may it not be true that a greater per cent. of cases are sent to the hospitals than in the past? People are beginning to realize that insanity can be better treated in institutions where it is made a special study and that the patient gets all the benefit of a large experience in his treatment. Statistics are more complete and reliable than they were, this may add some to the numbers. The

Tri-State Medical Journal and Practitioner for May says editorially that while the population of the United States has doubled in the thirty years from 1850-1880, insanity has increased six-fold. In 1850 there were 15,000 insane persons, in 1880 the numbers had increased to 90,000. In the last ten years the population increased 30 per cent., the number of insane 155 per cent. Some claim that insanity is not produced by civilization but simply revealed. We all know that a number of diseases have developed as a direct result of our modern way of living and perhaps no part of the body feels the strain, of the rush and bustle more than the nervous system. It is the thin edge of the the wedge and receives the first full force of the blow which is constant day and far into the night. The editor seems to think that the consumption of alcoholic beverages is distinctly on the increase and that it should be mentioned as among the causes of insanity. It is a matter of figures that the per capita consumption of the stronger alcoholic drinks is steadily declining. There is lots more drinking, as there are more people to drink, but they drink beer now where they drank brandy and wine is used instead of whiskey. We would suggest as the one underlying cause for many cases of deranged mentality, some form of indigestion and mal-assimilation, and while we may drink whiskey, still even coca cola if it has a bad effect on the digestive organs may do quite as well as a cause and promoter. The brain, driven to the height of its power and endurance day after day, harrassed with a thousand petty things which cross and hinder its main work, may continue healthy so long as good, strong, easy digestion goes on, but the nourishment failing, the work continuing, we have disease with loss of proper functions.

Fever Diet.

Hippocrates used to feed his patients on flour soup. A little later it became the fashion to give ordinary diet in cases of fever, In the middle ages the patient with fever was starved, Graves in Ireland, and Trousseau in France were among the first to suggest a nourishing diet in fever. In Germany, on the other hand, Senator forbade the use of milk and any nitrogenous food. It was only after Hosslin's reassuring experiments that an increase in fever diet took place. He showed that a liberal diet was in no way harmful to the patient, and that it diminished the loss of weight which invariably followed a feverish attack. The increase in diet had no effect in raising the temperature as was formerly supposed.

The President's Address to the American Medical Association.

Dr. Joseph M. Mathews, of Louisville, delivered a very practical address, at Columbus, as President of the American Medical Association. In speaking of the purposes and destiny of the Association, he urged that no class legislation should be indulged in; that they rule with reason not as politicians.

The Association should receive with open arms all who represent honesty and fair dealing, and entertain an earnest desire to elevate the standard of the profession. The annual wrangling was discountenanced and ordered discontinued. The question of a fixed place for meeting as permanent headquarters for the Association was answered in the affirmative and Washington suggested as the proper place.

The President called attention to the importance of attending the last day's session and urged the members to be on hand until the last motion was put. Clinics and dinners were given a black eye as tending to keep men away from the sessions and the most important men at that, all of which is directly to the point, and the members, one and all, should not lose it. In referring to the *Journal* mention was made of the new editor, Dr. Simmons, and of his ability to fill the responsible position with credit. As for the management of the *Journal*, the President was not in favor of any censorship over the papers published; if a paper is good enough to be read before the Association it is good enough to publish. So let every paper read before this Association be published in the *Journal*.

Dr. Mathews is certainly to be congratulated for settlement of the secretaryship, which for years has hindered the work of the Society, not on account of the Secretary but because of the annual discussion of the subject. The editor of the *Journal* will now be the Secretary of the Association, a wise solution of the difficulty. Certain societies, which had adopted the Code of Ethics, desired recognition by the Association, the President asked that such recognition be granted. Tuberculosis, a most vital question to all ot us, was held up for the attention of the Association.

The Anti-vaccinationists got a rap in passing, and the profession was urged to stand by compulsory vaccination as the only safe and proper method.

The interest of the profession in syphilis was demanded and attention called to the crusade against the disease which should have the hearty support of all. The address was closed with a touching appeal for

harmony in the ranks; it is something we so sadly needs, we miss so much of the joy and happiness of life because we are not at peace with our brother.

New Laws Regulating the Practice of Medicine in Illinois.

It seems rather strange that the granting of license to practice medicine should be in the hands of the State Board of Health, but so it is in the State of Illinois. The law now in effect is as follows:

Section 1. Be it enacted by the People of the State of Illinois represented in the General Assembly, That the State Board of Health shall organize within three months after the passage of this act; it shall procure a seal and shall receive through its secretary applications for certificates and examinations. The president and secretary shall have the authority to administer oaths, and the board to take testimony in all matters relating to its duties.

Sec. 2. No person shall hereafter begin the practice of medicine or any of the branches thereof, or midwifery, in this State without first applying for and obtaining a license from the State Board of Health to do so. Applications shall be in writing, and shall be accompanied by the examination fees hereinafter specified, and with proof that the applicant is of good moral character. Applications from candidates who desire to practice medicine and surgery in all their branches shall be accompanied by proof that the applicant is a graduate of a medical college or institution in good standing, as may be determined by the board. When the application aforesaid has been inspected by the board and found to comply with the foregoing provisions, the board shall notify the applicant to appear before it for examination, at the time and place mentioned in such notice.

Examinations may be made in whole or in part in writing by the board, and shall be of a character sufficiently strict to test the qualifications of the candidate as a practitioner. The examination of those who desire to practice medicine and surgery in all their branches shall embrace those general subjects and topics, a knowledge of which is commonly and generally required of candidates for the degree of Doctor of Medicine by reputable medical colleges in the United States. The examination of those who desire to practice midwifery shall be of such a character as to determine the qualification of the applicant to practice midwifery. The examination of those who desire to practice in any other system or science of treating human ailments who do not use medicines internally or externally, and who do not practice operative surgery, shall be of a character sufficiently strict to test their qualifications as practitioners. All examinations provided for in this act shall be conducted under rules and regulations precribed by the board, which shall provide for a fair and wholly impartial method of examination. Provided, That graduates of legally chartered medical colleges in Illinois in good standing, as may be determined by the board, may be granted certificates without examination.

Sec. 3. If the applicant successfully passes his examination, or presents a diploma from a legally chartered medical college in Illinois in good standing, the board shall issue to such applicant a license authorizing him to practice medicine, midwifery or other system of treating human ailments, as the case may be: Provided, That those who are authorized to practice other systems cannot use medicine internally or externalor perform surgical operations. Provided, further, That only those who are authorized to practtce medicine and surgery in all their branches shall call or advertise themselves as physicians or doctors: And provided, further, That those who are authorized to practice midwifery shall not use any drug or medicine or attend other than cases of labor. Such license shall be in such form as may be determined by the board, and in accordance with the provisions of this act: Provided, however, That any willful violation on the part of an applicant of any of the rules and regulations of the board, governing examinations,shall be sufficient cause for the board to refuse to issue a license to such applicant. Such certificates shall be signed by all members of the board and at tested by the secretary.

Sec. 4. Every person holding a certificate from the State Board of Health shall have it recorded in the office of the clerk of the county in which he resides or practices within three months from its date, and the date of recording shall be endorsed thereon. Until such certificate is recorded, as herein provided, the holder thereof shall not exercise any of the rights or privileges conferred therein. Any person practicing in another county shall record the certificate in like manner in the county in which he practices, and the holder of the certificate shall pay to the county clerk the usual fee for making the record. The county clerk shall keep, in a book provided for the purpose,a complete list of the certificates recorded by him,with the date of the issue of the certificate. The register of the county clerk shall be open to public inspection during business hours.

Sec. 5. The fees for examination and for

a certificate shall be as follows: Ten (10) dollars for examination in medicine and surgery, and five (5) dollars for an examination in midwifery, and three (3) dollars for a certificate if issued. For all other practitioners ten (10) dollars for an examination, and five (5) dollars for a certificate if issued.

Sec. 6. The State Board of Health may refuse to issue the certificates provided for in this act to individuals who have been convicted of the practice of criminal abortion, or who have by false or fraudulent representation obtained or sought to obtain practice in their profession, or by false or fraudulent representation of their profession have obtained or sought to obtain money or any other thing of value, or who advertise under names other than their own, or for any other unprofessional or dishonorable conduct, and the board may revoke such certificates for like causes. Provided, That no certificate shall be revoked or refused until the holder or applicant shall be given a hearing before the board.

Sec. 7. Any person shall be regarded as practising medicine, within the meaning of this act, who shall treat or profess to treat, operate on or prescribe for any physical ailment or any physical injury to or deformity of another: Provided, That nothing in this section shall be construed to apply to the administration of domestic or family remedies in cases of emergency, or to the law regulating the practice of dentistry or of pharmacy. And this act shall not apply to surgeons of the United States army, navy or marine hospital service in the discharge of their official duties, or to any person who ministers to or treats the sick or suffering by mental or spiritual means, without the use of any drug or material remedy.

Sec. 8. That any itinerant vender of any drug, nostrum, ointment or appliance of any kind intended for the treatment of diseases or injury, who shall, by writing or printing, or any other method, profess to the public to cure or treat disease or deformity by any drug, nostrum or application, shall pay a license of one hundred (100) dollars per month into the treasury of the board, to be collected by the board in the name of the people of the State of Illinois, for the use of said board. And it shall be lawful for the State Board of Health to issue such license on application made to said board, said license to be signed by the president of the board and attested by the secretary with the seal of the board; but said board may, for sufficient cause, refuse said license. And such itinerant vender who shall, by writing, or printing, or any other method, profess to cure or treat disease or deformity by any drug, nostrum or appliance without a license so to do, shall be deemed guilty of a violation of this section, and upon conviction shall be subject to the penalties hereinafter provided.

Sec. 9. Any person practicing medicine or surgery or treating human ailments in the State without a certificate issued by this board in compliance with the provisions of this act, or any itinerant vender violating the provisions of Section 8 of this act, shall for each and every instance of such practice or violation forfeit and pay to the people of the State of Illinois, for the use of the said Board of Health, the sum of one hundred (100) dollars for the first offense, and two hundred (200) dollars for each subsequent offense, the same to be recovered in an action of debt before any court of competent jurisdiction, and any person filing or attempting to file as his own the diploma or certificate of another, or a forged affidavit of identification, shall be guilty of a felony, and upon conviction shall be subject to such fine and imprisonment as are made and provided by the statutes of the State for a crime of forgery: Provided, That this section shall not apply to physicians who hold unrevoked certificates from the State Board of Health issued prior to the time of the taking effect of this act.

Sec. 10. Upon conviction of either of the offenses mentioned in this act, the court shall, as a part of the judgment, order that the defendant be committed to the common jail of the county until the fine and costs are paid, and upon failure to pay the same immediately the defendant shall be committed under said order for first offense not more than thirty (30) days, and for each subsequent offense not more than ninety (90) days; Provided, That either party may appeal in the same time and manner as appeals may be taken in other cases, except that where an appeal is prayed in behalf of the people, no appeal bond shall be required to be filed, whether the appeal be from a justice of the peace or from the county or circuit courts, or from the appellate court. But it shall be sufficient in behalf of the people of the State of Illinois, for the use of the State Board of Health, to pray an appeal, and thereupon appeal may be had without bond or security.

Sec. 11. On the 30th day of September of each year the State Board of Health shall make a report of its proceedings, and of money received and disbursed in the enforcement of this act, and all funds in the treasury of the State Board of Health on the 30th day of September of each year which have been received in the enforcement of this act shall be paid by the board into the State treasury.

Sec. 12. An act to regulate the practice of medicine in the State of Illinois, approved June 17, 1887, in force July 1, 1887, and all other acts and parts of acts inconsistent with this act, are hereby repealed.

We notice in the latter part of the second section that power is granted of giving license to a graduate of a college in Illinois without an examination. The Indiana Medical Journal quotes the New York Medical Journal as saying that it will be much better if all the applicants are required to stand the examination, and this will certainly be the proper way.

College of Physicians of Philadelphia—The William F. Jenks Memorial Prize.

The fifth triennial prize of five hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Various Manifestations of Lithæmia in Infancy and Childhood, with the Etiology and Treatment."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with Obstetrics, or the Diseases of Women, or the Diseases of Children;" and that the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1901, addressed to Richard C. Norris, M. D., Chairman of the William F. Jenks Prize Committee.

Each essay must be type-written, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay The Committee will return the unsuccessful essay if reclaimed by their respective writers, or their agents, within one year.

The Committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

JAMES V. INGHAM, M. D.,
Secretary of the Trustees.

June 15, 1899.

Eczema.

Perhaps the most of us have given our professional reputation a considerable shake up by telling some fond mother that we could cure the tetter on the baby in a jiffy and then using up all the ointments and powders in the pharmacopeia and a great many others in the vain attempt to fulfil our promise. Eczema in infants and the treatment of eczema is really a question for a special committee. These subjects are treated editorially in the Archives of Pediatrics. The authorities tell us that eczema in children is largely of intestinal origin, due to improper feeding. When we come to think of it, it is wonderful how few children are properly fed and yet the census report keeps growing. We think well of the delicacy of the young child's skin as a factor in the production of eczema, and we desire to come down heavy in favor of the diathetic nature of this disease in children.

Dr. Bulkley conveniently classifies the cause of eczema in a recent article in this same journal, as: Internal, dietetic, assimilative, neurotic; external, climatic, hygienic. The microbes do not seem to have many influential supporters in this disease; they evidentally get there with both or all their feet as soon as the skin cracks, unless the children are of that extinct or not yet developed class who keep clean, and it is perhaps because they do not need any to support their claims as a swivel link in the chain of causes that they have not many supporters. Predisposition, which is a kind of foreordination, is held responsible as a causal agent or a kind of underhand participator,

The treatment of eczema in infants is to let it alone until it begins to get well, then apply a mild antiseptic powder twice daily. The mothers of a former generation tell us that it will not do to cure it up, that is simply to drive it into the blood and it may break out in the stomach or the bowels with fatal effect. Some doctors we all know have been gravely told that a weakly boy is suffering from the effects of an internal tetter which some unthinking doctor drove in on him when he was a baby. Holt says that it is always desirable to cure an eczema and never dangerous, based on an ex-

perience with 3,201 cases and there is no common sense reason why these cases should not be cured. Many of the old fogy notions held by the laity is the harvest of the doctors sowing. We allow so many notions to go unchallenged until having gone through three generations they become established facts that an angel from heaven could not disprove. There is no specific treatment for eczema and as in all such diseases the general health and welfare of the patient must receive the most careful attention of the physician. Diet of both mother and cow. Do not depend alone on local treatment. Do not think that only through the intestines can health come. It comes sometimes through the air we breathe.

Sanitary Lessons of the War.

We learn lessons in the midst of disease and death, in truth, many things we should never have known except pestilence, famine and war had been in our history. So in the late war with Spain we learn some things new and some things old that we had forgotten. Surgeon-General Sternberg read a paper on this subject at Columbus reported in the New York Medical Journal, and after calling attention to the numbers saved by the use of antiseptics upon the field, he refers to the fact well known to sanitarians and military surgeons that, as a general rule, more soldiers succumb to disease than are killed by the bullets of the enemy, and our recent war has not been an exception in this regard. The total number of deaths reported in our enlarged army, including regulars and volunteers, from May 1, 1898, to April 30, 1899, is 6,406. Of these, 5,438 died of disease and 968 were killed in battle or died of wounds, injuries, or accident. During the civil war the number of deaths from disease was 186,216.† The number who were killed in battle or died of wounds was 93,969, or about one-half of the deaths from disease in the Union armies from the commencement of the war to the 31st of December, 1862, was 34,326, and in the Confederate armies during the same period, 31,238.

In comparing the death-rates from disease during the year of the Spanish-American War, (May 1, 1898, to April 30, 1899) and the first year of the civil war (May 1, 1861, to April 30, 1862) note should be taken in the first place that the mean strength in May, 1861, was only 16,161 as compared with 163,726 men in service in May, 1898. The mustering in of volunteer troops progressed more slowly in 1861 than during the recent war, so that it was not until September and October, 1861, that the mean strength assumed proportions equal to that of the months of the Spanish war. Although the number present in the camps of 1861-'62, after October, 1861, was largely in excess of those aggregated during the past year, the average annual strength during both wars did not differ greatly. Nevertheless, the deaths from disease in 1861-'62 numbered 10,522, while 1898-'99 they amounted only to 5,438. The death-rate to the thousand of strength mounted gradually month by month in 1861-'62, and indeed it did not reach its acme until February, 1863, when the rate of 6.39 was reached. In 1898, on the other hand, the acme, 5.9,8 was reached suddenly in September, but, owing to the sanitary measures adopted, the fall during October and November was as rapid as had been the rise.

The same gradual rise is seen in the mortality statistics of typhoid fever during the civil war. The highest death-rate, 2.81, was not reached until May, 1862, the thirteenth month of the aggregation of the troops, when 1,092 men died of this disease, and the fall of the rates was as gradual as the rise. On the other hand, the rise in 1898 was sudden, the maximum rate, 3.57, being reached in September, when 933 men died of this disease; but the fall during the months of October and November was as notable as the rise. This sudden suppression of the disease can not be attributed to an exhaustion of the susceptibility of the troops to attack from this fever, as they only suffered at the rate of 12.37 to the thousand of strength during the twelve months, whereas the troops of the civil war suffered at the rate of 19.71 to the thousand. It can be attributed only to the active preventive measures that were instituted, and especially to moving the troops to fresh camp sites and to the greater care exercised in the disposal of excreta.

The average annual mortality from typhoid fever in our regular army since the civil war has been: for the first decade (1868-'77), 95 per 100,000 of mean strength (.95 per 1,000); for the second decade (1878-'87, 108 per 100,000; for the 3rd decade (1888-'97) 55 per 100,000. This latter rate compares favorably with that of many of our principal cities being exceeded by that of Washington, which is 78.1 per 100,000, Chicago and Pittsburgh.

Hygiene is made one of the principal subjects of examination for candidates desiring appointment in the medical corps of the army, and at subsequent examinations for promotion to the grades of captain and major is given a most prominent place. It is also the most prominent subject in the course of insruction at the army medical

school, where the student-officers spend five hours daily for a period of five months in practical labratory work relating for the most part to the cause and prevention of infectious diseases. It should be remembered, however, that the army medical school was not established until the year 1893, and consequently but a small proportion of the medical officers of the army have had the advantage of this course of instruction. But the comparatively small number of medical officers of the regular army available for duty in the large camps occupied by our troops at the outset of the war proved to be entirely inadequate to control the sanitary situation in these camps and as a result of the conditions existing the mortality from typhoid fever in our armies during the year ending April 30, 1899, has been more than twenty-two times as great as the annual mortality in our regular army during the decade immediately preceding the war period. As compared with the first year of the civil war, however, there is a decided improvement, the typhoid mortality for the first year of the civil war having been 1,971 per 100,000 of mean strength, and for the Spanish-American war 1,237 per 100,000. Moreover, the vigorous sanitary measures enforced enabled our troops to quickly free themselves from the ravages of this infectious disease, and, while the line of typhoid mortality continued to ascend during the first year of the civil war and subsequently, it rapidly fell after the middle of September last, and for the last six months of the period under consideration has been remarkably low. Indeed, in the history of large armies the record has never heretofore been equaled. The reasons are apparent, and even in the light of our recent experience I am not sure that under similar conditions we could avoid similar results. Sanitarians generally are familiar with the difficulties attending their efforts to restrict the ravages of infectious diseases in towns and cities. They have to contend with the ignorance and reckless indifference of a large proportion of the population, with the ignorance and mistaken parsimony of legislative bodies, and to some extent with the negligence or perfunctory performance of duties assigned to them by agents of the health department, often appointed as a reward for political services rather than on account of their special fitness for the work. Perhaps it was too much to expect that typhoid fever should be excluded from our camps, unprovided with sewers and occupied by our new levies of troops, having for the most part inexperienced officers both of the line and in the staff departments. The medical officers of regiments were appointed by the governors of States, and, as a rule, were competent professionally, but they were called upon to assume new responsibilities for which they had no special training. Unfortunately hygiene and practical sanitation are subjects which receive little attention in our medical schools or from physicians and surgeons engaged in the practice of medicine. But even those days in which the regimental surgeon was fully aware of the importance of camp sanitation and urgent in his sanitary recommendations, he was unable to control the sanitary situation unless the regimental and company officers enforced the necessary measures for protecting the health of the command. And just here is the fundamental difficutly when we are dealing with new levies of troops. The officers and enlisted men of our volunteer regiments were, as a rule, intelligent, patriotic and brave, but they were not disciplined. Each man was in the habit of judging for himself and acting in accordance with his individual judgment. Discipline consists essentially in an unquestioning obedience to orders from those having proper authority to give them. Trained officers can not at once establish discipline among untrained troops, and when both officers and enlisted men are without military experience, it is evident that, with the best material, time will be required for the establishment of discipline And in the absence of discipline it is impracticable to enforce proper sanitary regulations in camp. The surgeon-general may formulate sanitary regulations, and the general commanding an army corps or a division may issue the necessary orders, but in the absence of discipline these orders will not be enforced. A reckless recruit *will* drink the water which has been condemned as unsafe. and at night *will* defile the ground in the vicinity of his tent rather than visit the company sink, which, possibly, is in a disgusting and unsanitary conditions because of a failure to carry out the orders to cover the surface of excreta "with fresh earth, or quicklime, or ashes, three times a day."

And now, in order that the "sanitary lessons of the war" may not be lost sight of, and may be made available hereafter if we should again have occasion to assemble a large army on short notice, I consider it my duty to speak plainly with reference to one of the principal causes of the epidemic prevalence of typhoid fever in our camps. As a rule, this disease was called by some other name by the medical officers on duty with regiments who first saw the cases.

Usually it was assumed to be malarial fever, and was treated as such until the patient became so sick that it was found necessary to send him to the division field hospital or to a general hospital. This general statement is based upon the carefully made investigations of a board of medical officers appointed upon my recommendation.

This failure to recognize typhoid fever during its earlier stages is an error of diagnosis which was made on a very extensive scale during the civil war, has been made on an equally extensive scale by surgeons of the British army on duty with troops in India, and is still being made by a majority of the practitioners of medicine in certain parts of our own country. Finally, the principal lessons to be derived from our recent experience may be stated as follows:

A trained medical corps, hardly adequate for an army of twenty-five thousand men, can not control the sanitary situation when this army is quickly expanded to two hundred and fifty thousand. Physicians and surgeons from civil life, however well qualified professionally, as a rule are not prepared to assume the responsibilities of medical officers charged with administrative duties and the sanitary supervision of camps. The proper performance of such duties can not be expected from a physician without military training or experience, no matter how distinguished a position he may have held in civil life. Courage and patriotism on the part of line officers and enlisted men can not take the place of knowledge and experience. New levies of troops are, as a rule, ignorant of the first principles of camp sanitation, and reckless as to the consequences of their neglect of prescribed sanitary regulations. Therefore training and discipline are essential factors in the preservation of the health of soldiers in garrison or in the field.

The value of the aphorism "In time of peace prepare for war" has received additional support. This preparation should include a corps of trained medical officers larger than is absolutely necessary for the army on a peace basis, and systematic instruction in military medicine and hygiene for the medical officers of the national guard as well as for those of the regular army; also instruction of line officers in the elements of hygiene, and especially in camp sanitation. It should also include the establishment of camping grounds in various parts of the country, having an ample supply of pure water, a proper system of sewers, etc. If our volunteers could have been assembled in such camps during the late war a saving in lives and money would have resulted which would without doubt have demonstrated the economy of such preparation for war in time of peace.

The Bottle-Fed Baby.

Much of our work at this season of the year is with children, and the bottle-fed baby comes in for a great deal of attention. A recent editorial in the New York Medical Journal goes on to say that the perils that surround the bottle-fed baby are manifold. If a liquid reasonably resembling breast milk in composition and temperature is put into its bottle, it is still in danger of sucking in septic and possibly specific germs that have been lurking in the rubber appurtenances of the bottle. The abomination known as the Alexandra nursing bottle, that familiar device for saving the nursemaid trouble, has commended itself to the unthinking for many years, and its use has even been upheld by some physicians who should have known better, although one would suppose that the dullest comprehension could not fail to perceive the impossibility of keeping it clean—clean in the ordinary sense of the word, not aseptic. Most physicians whose practice has been largely among children have, it is true, inveighed against it, but hardly any heed has been taken of their statements, perhaps because they were not clinched by indisputable demonstration. Such a demonstration seems now to have been made, and it is by no means the least of the services rendered by bacteriology. To Dr. Wende, the health officer of Buffalo, so far as our present information goes, is due the credit of having proved the agency of the "hose" bottle in causing cholera infantum. The flexible external tube of the Alexandra bottle, as everybody knows, is made of soft rubber, a material which speedily becomes foul when kept in contact with impure liquids or those that readily decompose. Dr. Wende has shown that this tube, after having been in use for a little time, contains in the depths of the rubber, to say nothing of its inner surface, micro-organisms that even boiling does not destroy, as is proved by the ease with which cultures of them are grown. In consequence of Dr. Wende's demonstration the Buffalo board of health some time ago passed an ordinance forbidding the sale of the "hose" nursing bottle, and during the year or more that this enactment has been in force the cholera infantum mortality of Buffalo has been fifty per cent. less than before.

But this is not all. The elimination of the "hose" does not, of course, do away with all the dangers of bottle-feeding. Not only has the baby to be guarded against bad milk, but the micro-organisms lurking in

soft rubber still pursue it. Dr. Wende finds that even the rubber nipple used when the "hose" is dispensed with soon becomes a nest for bacteria; so that in time even that must go, although it will have to be used, we presume, until a less objectionable form of nipple is devised. Dr. Wende finds that the nipples made of white rubber are more readily infected than the black ones; therefore, so long as rubber nipples still have to be employed, the black ones are to be preferred. What is wanted now is a nipple combining something of the elasticity of soft rubber with the germ-proof quality of glass. Celluloid has been suggested as a material that might be made to fulfill these requirements, and we see no reason why it should not if properly treated. Something must be invented to supersede the soft rubber nipple.

Surgical Appendicities.

Dr. B. M. Rickitt's read a paper with this title at the recent meeting of the Ohio State Medical Society. He said in the conclusion of his paper that recovery is more certain when operation is made early in the first attack.

Diagnosis is more difficult in the female, especially when pregnant.

It is often impossible to determine character of trouble without exploration.

Medicaments are without avail.

Incision through the belly wall should not be closed in cases where pus is present, or where there is doubt as to continued bleeding.

Removal of the appendix is not necessary or advisable in all cases, especially when not easily discovered upon opening a pus cavity.

It is safer to allow a perforated appendix to remain than to lacerate a pyogenic wall in searching for it.

The ability of a remaining perforated appendix to cause subsequent trouble is in doubt, as the process which is active enough to perforate the muscular walls of an appendix would seem active enough to destroy its mucous membrane.

There is but a very small per cent. of gut perforatious under these circumstances which should be closed by suture, or otherwise, at time of primary operation, and still fewer which will require such thereafter.

All abscess cavities should be packed from the bottom with gauze, which will absorb serum, blood and pus.

Appendicular pain may be inflammatory of mechanical, either one being acute of chronic.

The presence or absence of abnormal temperature should not be considered if severe pain or tenderness are present.

Foreign bodies may be evacuated from the appendix into the gut without having caused any trouble, leaving the appendix undisturbed.

It is safer to operate upon acute cases of appendicitis in their homes than to do so in the finest operating room if ambulances or trains must be brought into requisition to take them to that room.

A secondary operation for the removal of an appendix which has been left undisturbed at time of opening the abscess is one of the most difficult in abdominal surgery.

Diseased ovary or tube may produce a pathologic appendix, and vice versa.

Appendicitis may terminate in spontaneous recovery, which is, however, rare.

The appendix is subject to the diseases of other parts of the alimentary tract.

Therapeutic Principles Estabilshed in Typhoid Fever.

Dr. L. T. Roush presented a paper with this title at the Columbus meeting of the American Medical Association (Medical Record June 17, '99). He took the ground that certain agents, when properly used, had a specific influence not only in mitigating the severity of the fever but also in abridging its duration; a lessened mortality, therefore, he considered to be the natural consequence. The principle of action was to keep up a moderately free catharsis, with calomel especially; but other cathartics could be used, which would change the action in the bowels which almost always took place sooner or later in the disease in the form of a free diarrhœa to that action which was characteristic of the medicine given. In so doing the toxin poisoning which always occurred was in a measure prevented, and, as a consequence, the symptoms were greatly mitigated. This treatment by catharsis was epecially insisted upon during the first six or eight days. During the further progress of the disease, if the characteristic diarrhœa appeared again, the same action of medicine should be sought. The salicylate of ammonium was given in solution in five grain doses every two hours day and night, from the beginning to the end of the fever, except when the temperature fell below 102 degs., F. in the evening, and then it was given only during the day. Sponging the patient frequently with cold or warm water, whichever was most agreeable, was also insisted upon. A great deal of stress was laid upon depriving the patient of food during the first week or ten days, but he favor-

ed the free administration of water, as well as coffee or tea should the patient desire it; he also favored the giving of fruit-juices from the beginning. Milk was preferred above all other kinds of food when it agreed with the patient. The author also made a point against the use of the bed-pan, believing it was detrimental to the patient. If the patient was properly treated he would have plenty of strength to get up, and there would be no danger from perforation of the bowel or from heart failure. The speaker also asserted that no patient who had much typanites was properly treated, and he considered this as the symptom having the most evil omen of all others. It was the evidence of the continued multiplication of the typhoid bacillus and the poisoning which resulted, and every effort ought to be made by free catharsis and strychnine internally and turpentine stupes externally to get rid of it. The speaker claimed that he could and did diminish all the symptoms and greatly abridge the duration of the disease, and pointed, as the result of his work in a series of one hundred and forty-three cases, to a mortality of 3.5 per cent.; and he saw no use in any man's decrying the medicinal treatment of the disease, whether he be of high or low standing in the profession.

Local Treatment in Gynecology.

The routine treatment of many forms of pelvic disease in women is local applications of various kinds. Dr. Findley, in a recent article in the Medical Standard, calls attention to a possible harm in the promiscuous use of strong antiseptics to the vaginal and uterine mucosa. As some of the causes for even local disorders, he mentions, *Disorders of the General Circulation*, as incompetent heart, lesions of the lungs, liver or kidneys, and in general anemia.

Insufficient Elimination.—The uric acid diathesis, constipation, etc.

Dress.—Fashion in dress is one of the most serious obstacles to the prevention and cure of the diseases of women.

The hygienic dress is union undergarment; equestrian tights; muslin waist and skirts; dress in one piece, or so made as to equally distribute the weight over the shoulder, bust and hips. Such a garment will fulfill the three essential requirements of dress:

Uniform distribution; freedom from traction; freedom from constriction.

As to Treatment.—Intrauterine applications, as a routine office practice, are to be condemned. The liability to infection is great where the procedure is done with indifferent aseptic care; and strong caustics should be applied to the endometrium but seldom. Strong caustics frequently applied to the endometrium cause stenosis of the cervical canal, and cicatricial contraction of the entire body of the uterus. As a result there is sterility and permanent irritability of the uterus, leaving nothing to be done short of hysterectomy.

Electrical cauterization is open to the same objections. If the uterine canal is to be entered with instruments or finger it should be done with a strict regard to sergical cleanliness.

Antiseptic Applications.—The application of antiseptics to the vulva, vagina and cervix when there is an acute affection of these surfaces is altogether rational and practical. But I beg to protest against the indiscriminate swabbing and tamponading in cases of endometritis and metritis. Such pernicious practices can do little good and are capable of untold harm. They seldom effectually reach the seat of infection and are not always efficient when they do.

Tampons.—These are invaluable in their place, but like many another good thing they frequently get out of their proper sphere. I would recognize the general indications for tampons, but fortunately these indications cover a wide range of usefulness in gynecology. In all acute and subacute inflammations of the pelvic organs and tissues the indication is to place the parts at rest and to relieve the active and passive congestion by glycerine tampons. But this does not mean that one or two tampons are merely to be smeared with glycerine. The tampons should be small, they should be soaked in glycerine and several of them should be loosely packed in the vault of the vagina. They are to be left there 6 or 8 hours. This will insure an outpouring of the serum from the pelvic tissues; it will relieve tenderness, diminish exudates and reduce the size of the engorged uterus and adnexa. After the tampons are removed, long hot douches of sterile water are to be given; the bowels freely opened; rest enjoined, and pelvic massage will usually complete the treatment.

The second indication would be for dry lamb's wool tampons. These are to serve as a support to the displaced uterus, but for temporary purposes only. When the uterus is displaced backward or downward, and because of tenderness or lack of support from the perineum it would be well to support the uterus with tampons inserted with the patient in the knee-chest position. It is sometimes true that a uterus supported by tampons for a few weeks will then remain in position without mechanical sup-

port. The routine practice of inserting tampons without regard for legitimate indications cannot be too vigorously condemned. They interfere with the free drainage from the uterus and vagina and by absorbing the infected secretions of the vagina and uterus serve as hotbeds in which the germs thrive. A reproach will be lifted from the medical profession when the swabbing and tamponading will have ceased to be indiscriminately practiced.

THE DOUCHE.—The douche (vaginal) is a most valuable therapeutic agency, but unlike the preceding methods it has been too little used. A vaginal douche of two quarts of water taken in the sitting posture may cleanse the lower segment of the vagina, but nothing more. The patient should be lying on her back in a comfortable position and 4 to 6 gallons of hot sterile water or antiseptic water solution should be slowly given in order that 20 minutes or a half hour may be consumed in the process.

MASSAGE.—We come now to a consideration of a form of local treatment with a wide range of utility. The procedure is practiced and highly extolled in the following conditions;

Adhesions binding loosely the uterus and adnexia in abnormal positions.

Inflammary exudates.

Displacements of the uterus caused by a lack of support in the ligaments and muscles by inflammatory adhesions.

The contraindications to its use, to be carefully noted, are:

Acute inflammation; Presence of pus—especially in the tubes; Malignancy; Pregnancy—as a rule; Tuberculosis.

We thus see that it is most essential to make a positive diagnosis before giving massage.

CONCLUSIONS.

The vast majority of pelvic lesions commonly treated by local applications belong either to the domain of surgery or to internal medicine,

Disorders of the pelvic viscera as the result of obstruction to the general circulation, primary and secondary anemias, chronic constipation; the uric acid diathesis; gout, rheumatism, syphilis and other constitutional diseases; passive engorgement of the pelvic and abdominal viscera from whatever cause; together with errors in dress, food and exercise are to be remedied by directing the treatment to the predisposing causes and local measures can only serve as a complement to the general treatment—are often unnecessary and may do harm.

Many of the cases that recover under local treatment do so regardless of local measures, or by virtue of the additional general treatment.

The indiscriminate and wholesale use of tampons and the routine practice of intrauterine applications of caustics are productive of great evil and should be condemned.

Douches should be given in the dorsal position; should be as warm as the patient will permit, and 4 to 6 gallons of sterile or antiseptic water should be given two to four times daily.

Pelvic massage deserves a prominent place in gynecologic practice. It is imperative that there be an absolute diagnosis in order that the indications and contraindications be clearly defined.

The Toxicity of Tobacco and a Method of Eradicating It.

Dr. H. Stern in the Medical Review of Reviews, says, that the alkaloid or plant is a powerful depressant, and also perhaps an irritant poison as well; this point is difficult to demonstrate in the presence of the sudden depression simultaneously induced. The vapor of the plant is poisonous, probably because of the volatility of the nicotine; and, as one would expect, is more poisonous in a hot than in a cold atmosphere. Working amid tobacco emanations produces a slow poisoning, one of the most striking symptoms of which is the tobacco amblyopia. Both man and animals readily acquire an immunity toward the action of tobacco. When tobacco is burned, its smoke contains little or no nicotine, because it has been decomposed. The products of its decomposition, however, are present in the smoke, and these with other volatile products of combustion render the smoke a highly complex poisonous substance. The water pipe is the best device for neutralizing the poisonous properties of the smoke. In smoking cigars and cigarettes, the system is exposed to the toxic action of the tobacco by the direct contact of the mouth and weed.

Ordinary chronic nicotine poisoning is made up of the following symptoms: Catarrh of the upper respiratory passages, dyspepsia, asthma, smokers' heart, muscular tremor, decline in weight, decrease in sexual excitability, amblyopia and perhaps more serious affections (neuroses and psychoses).

He prescribes adonidine in doses of five milligrams each for tobacco heart, combined with carbonate of ammonia ten centigrams, and camphor three centigrams.

Many attempts have been made to free tobacco from its nicotine, but no one as yet has completely solved the problem. As a

rule, the smoker does not relish denicotinized tobacco. Still some tobacco originally contain but a very small proportion of the alkaloid, and are largely consumed by the residents of the counties where such tobacco grows.

He thinks the method of Gerold the best yet devised. It consists in treating tobacco with a decoction of tannic acid and oil of origanum. After the tobacco has absorbed the liquid it is treated with moderate pressure and heat.

With cigars made from tobacco thus prepared, he has experimented with patients who were non-smokers, and got practically no disturbance of the heart, respiration or nervous system, even when three cigars were smoked in succession. The odor and flavor of the tabacco suffer no change. The proportion of the decoction are as follows: Tannic acid, 15 grams; essential oil of origanum, 30 grams; water, about 3 pints—to be boiled down to 36 ounces.

Infant Mortality in Foundling Asylum.

A high mortality among foundlings has come to be looked upon in various parts of the world as something inevitable. In Pediatrics, July 1st, 1899, the editor deals with this subject as follows:

A definite epidemic or endemic affection is not demonstrated, as a rule, yet the children do not thrive, and their lives cannot be saved. This calamity attains such proportions in some cities that the abolition of the foundling asylum has been seriously proposed. Dr. Szalardi, of the Budapest Foundling Asylum, would attribute this mortality almost entirely to separation of the child from its mother. For some years the institution over which he presides has refused to admit a foundling unaccompanied by its mother, provided, of course, that the latter is well enough to take charge of her child. Those without mothers, and they are few in number, have wet-nurses assigned them. Suspicious cases of enteric disorders are isolated, and by following this plan a dangrous epidemic was, upon one occasion, cut short. The mortality in this institution amounts to but 15 per cent., while in some of the German cities it is three or four times as great. Dr. Finkelstein comments rather warmly upon Szalardi's article, and accounts for the high mortality in certain cities by local conditions alone. In the Berlin institutions nearly one-half of the foundlings are hopelessly condemned to die before their admission. No maternal care nor breast-milk could alter their fate. Finkelstein defends artificial feeding, and believes that its future is very bright, and that it will yet do much good work in infant asylums. A recent Paris thesis on the subject of sterilized milk, which work contains note of over 230 cases, shows that children may gain weight with equal facility when sterilized milk is substituted for breast-milk. This controversy, which threatens to become widespread, between the two methods of management of infants who are public charges, cannot fail to lead to a better understanding of the causes of local mortality rates, and of the best methods of saving the babies lives.

Some Septic Condition in the Ordinary Diseases of Children.

Dr. Cotton, of Chicago, read a paper with this title at the Columbus meeting of the American Medical Association. He said: It is interesting to note that after having wandered far from the notion that disease is a special entity always the same, but manifesting itself differently in different individuals, there has been of late a return to this idea in a certain way. In none of the infectious diseases do we fear the special disease itself so much as its complications. Diptheria, for instance, we have now an absolute cure for when it is pure Klebs-Loffler diptheria, but in many cases almost from the very beginning there is an accompanying infection by some form of streptococcus. But the same thing holds true for the most of the infectious diseases. In pneumonia, the cases that get beyond control in measles, the serious complications in scarlet fever, the angina and membranous affections of the throat; in influenza, the otitis media cranial sinus involvements; in typhoid fever, the perforations are all due to a mixed infection, and usually the streptococcus is at fault. The original disease seems to make of the organism a favorable culture medium for the streptococcus. Much as we may fear tuberculosis, we fear still more the mixed infection. Streptococcemia is an important factor, and its frequency of late gives cause for the question, Is this a special streptococcus period? Meantime, bacteriology is making diagnosis more exact and, as in the past, it has brought us to the knowledge of specific causes of disease, so now it is bringing us to the realization of the modifications of disease and their true origin. This will undoubtedly change our nomenclature in the future, and as we now no longer talk of dropsy, jaundice, and biliousness but specify the conditions these symptoms are due to, so we shall no longer talk of pneumonia, rheumatism, diptheria and the like

but make clear just the form of these diseases we intend.

Since mixed infections are most intractable it is necessary to put forth all our therapeutic efforts against them. We are able to treat them on three lines; first by prophylaxis, making all the openings into mucous-lined cavities and, as far as possible, those cavities themselves aseptic, and keeping them so. Special precautions are necessary in this matter because the primary infection has made the organism less resistive to succeeding ones; second, specific antitoxic treatment must be employed, not alone for its specific curative effect, but because the good it does in related diseases also; third, the general supporting stimulant treatment that increases cellular resistance to microbic invasion and neutralizes the effect of change in cell metabolism that have been already induced.

Climate in the Treatment of Tuberculosis.

Dr. Herman Weber (British Medical Journal, June 3, 1899,) says:

If we have come to the conclusion that the patient has a weak constitution, we must be guarded in recommending great altitudes and long sea voyages, and give the preference to warm, sunny, and sheltered places. On the other hand, in strong, somewhat torpid constitutions mountain climates are to be preferred, and occasionally also long sea voyages. In these cases one can do much by keeping them continuously in the open air, by good feeding and by regulated exercise.

In regard to the following indications the constitution has always to be considered:

2. In cases with limited disease at one or both apices without or with an only slight amount of fever, nearly all climates can be made use of, but especially great altitudes and sea voyages if the constitution is a strong one.

3. Cases with limited local disease and high fever must be at first treated in their houses or in the neighborhood of their homes.

4. Cases with extensive disease of one lung or of both lungs, without fever or with only slight fever, are more difficult to advise. In the majority of these cases treatment at an only moderate elevation, or at warm seaside localities, deserves the preference.

5. In advanced disease with fever, long journeys should be avoided, and, if possible, neighboring sheltered health resorts, together with careful supervision, should be recommended.

6. In progressive tuberculosis with scattered foci in both lungs and much fever, sheltered localities near the patient's home, or the home itself, are probably the best places.

7. In cases of chronic, slowly progressive phthisis the author has seen, on the whole, better results from warm winter resorts, and sometimes from sea voyages.

8. Quiescent cases with extensive damage cicatrization are generally better off at only slight elevations.

9. Cases with albuminuria without fever should avoid great altitudes, and select dry places.

10. The complication of modern diabetes does not exclude the use of great altitudes, but the latter are injurious in cases with advanced diabetes and emaciation. Similarly, great altitudes should be avoided in cases where the tuberculosis is secondary and the diabetes the primary affection.

11. Chronic cases with much catarrh require places with as little wind as possible, but in the case of young persons places of great elevation with little wind need not be excluded, and are often even to be preferred.

12. Great altitudes are contraindicated in chronic cases with extensive emphysema; these cases require warm winter resorts or places with pine woods.

13. When asthma is a complication, in persons whose idiosyncrasies in regard to localities are unknown, no certainty in the choice of climates is possible; but in the majority of relatively young persons great elevations should be preferred, while in older persons moderately warm localities at only slight elevations should be selected or places amid pine woods.

14. In all climates for the treatment of tuberculosis selection of the dwelling house is of great importance; it should get much sun, should be sheltered from winds and free from dust, and should be built on dry ground; it should be removed from stagnant water and swamps, and from the impure air of factories and similar drawbacks.

15. For the prevention of scrofula and tuberculosis all healthy climates can be used, as long as a good diet and plenty of time in the open air can be obtained; but great altitudes and marine climates have advantages—the former rather against pulmonary tuberculosis, the latter (including sea voyages) more against scrofula.

16. The cure of tuberculosis during the early stages is possible in all healthy climates; some climates, however, have advantages for various cases over the other climates; for instance, notably those of great altitude. But climate by itself without careful medical supervision is generally

insufficient. The patient's blind reliance on the climate often leads to errors, to aggravation of the disease, and to death. For the majority of patients, therefore, treatment in sanatoria should be preferred, but for the treatment of the poor it is a necessity. The erection of numerous sanatoria for the people is therefore a national requirement for the cure, the prevention, and extermination of tuberculosis.

Operation for Extreme Procidentia.

Martin (Medical Standard, June, 1899,) believes that an operation for the cure of complete descent of the pelvic organs as the ultimate result of long standing uterine prolapse must be very thorough if undertaken at all. He recently operated on an old woman of 78, The prolapse began after a first labor, and her last occurred many years ago. The bladder was quite outside the vulva. There was a huge rectocele including, besides the usual diverticulum of the anterior part of the lower third of the rectum itself, the rest of the rectum and much of the large intestine above it. This descent of large intestine involved the formation of a capacious pouch full of small intestines, and constricted at the vulva, so that there was a true "neck" as well as a true perineal sac. Martin set to work to extirpate the whole vagina. Anteriorly this was easy: its thickened wall was dissected off the bladder, which was pushed upwards, then the uterus and appendages were removed with little difficulty. The recto-vaginal septum gave, on the the other hand, much trouble. Martin set to work to separate the rectum from its anterior connections. He dissected till he reached the peritoneum. Then he pushed upward a long segment of liberated gut, and sutured a line of rectal tissue, at a reasonable distance from the anus, to the very small fringe of vaginal tissue which he had left around the valvular orifice. He admits that a "fearful" gap was left to fill in. Fortunately the integument in the aged patient was so lax that he could draw it inwards from around the vulva, and suture it so as to close in the rectum, support the mass of viscera, and obliterate the vulvar orifice, leaving open room for the urinary meatus. Yet there appears to have been no abnormal tension on the skin thus employed as a pelvic diaphragm. The patient passed urine naturally from the first, and stood upright, contrary to orders, on the second night. On the twelfth day it was difficult to keep her in bed. The skin had healed rapidly, and supported with ease the bladder and intestines, no heavy diseased internal genitals being left to bear downwards.

Foreign Bodies in the Vermiform Appendix.

John T. Mitchell (University Medical Magazine): Of 1,400 cases of appendicitis collected from various sources in the last ten years he found only 7 per cent. of true foreign bodies; while in 700 of the cases, in which a definite statement was made as to the nature of the foreign body, there were 45 per cent. of fæcal concretions. In 250 cases of appendicitis in the Johns Hopkins Hospital, in the past ten years, there was only one foreign body, a sediment of tapeworm. Osler, in ten years' experience in Montreal, found foreign bodies only twice; in one instance five apple-pips, and in another eight snipe-shot. The most common foreign bodies have been gall-stones, round worms, spicules of bone, bristles and pins. Pins have been especially frequent. Mitchell has collected twenty-eight cases in which a pin was found in the appendix at operation or autopsy, together with two instances in which a pin had perforated the cæcum. It seems remarkable that in no single case was there any knowledge of a pin having been swallowed. Contrary to what might be expected, they occurred more frequently in males than in females (males, seventeen; females, nine). The resulting appendicitis was of a very variable type. In some cases the symptoms were mild, leading to chronic appendicitis, with recurrent attacks, or with long-continued pain, and, perhaps, finally ending in an abscess formation following the first appearance of symptoms.

The pin entered the appendix by its head or point, and, except in one or two instances, where it lay directly across the lumen, it was straight, with its long axis parallel to that of the appendix. In seven of the twenty-eight cases the appendicities was associated with abscess of the liver.

The Surgical Treatment of Acute Peritonitis.

Dr. A. F. House (American Medical Association, Columbus Meeting) said that the peritoneum is one of the most susceptible parts of the body to infection, especially that part overtying the small intestine. Peritonitis may be either localized or general, and the usual infecting micro-organism is the bacillus coli communis, derived from the intestinal tract. The symptoms which demand immediate operative interference are abdominal pain, referred especially to the umbilicus, tenderness on pressure, early rigidity of the muscles, especially over the point of infection, the vomiting of a green, "ropy" substance, dimunution or absence of peristalsis, abdominal distention, and a rise in the pulse and tem-

perature. The treatment of peritonitis demands exactly the same methods of surgical procedure as are indicated in septic inflammation of other tissues, and without operation the result must be a fatal one. The evacuation of pus, free irrigation, and the securing of good drainage give the patient the only chance of life, and the operation should not be postponed too long. Strong antiseptic solutions should not be used in irrigating, and the best results have been obtained by the use of physiological salt solution. If the intestines be greatly distended with gas or fluid they should be brought to the edge of the wound, incised, and their contents evacuated, and then the incision closed with Lambert sutures.

Petroleum in Medicine.

The general action of petroleum is that of a sedative to mucous membranes and the skin, whether introduced into the system or applied locally. Given in irritable conditions of the stomach, such as we have to contend with in acute or chronic gastritis, in inflamed states of the mucous membrane of the large or small intestine, as in dysentery or diarrhœa; or in irritable states of the rectum and adjacent structures it is soothing and harmless. The remedial action is not based alone on its negative virtues here outlined, for it becomes an important factor in preventing the absorption of poisonous products from the intestinal tract, and therefore, by its judicious employment an important ally in arresting the progress of disease, whenever the disease is dependent upon the presence of poisonous elements in the alimentary canal. This assumption extends the application of petroleum to nearly all disorders that are dependent directly or indirectly upon failure in nutrition and includes, of course, all affections of the pulmonary apparatus. For local irritations which could be reached by external application, petroleum has long been looked upon with favor both by the laity and by the medical profession. It has been found beneficial in relieving uterine disorders and affections of the air passages and in allaying all kinds of local irritations and preventing the transudation of unhealthy secretions. Of late years similar conditions have been overcome by the internal use of petroleum. In the case of fever for example, when the secretions are arrested, and when putrefactive changes are taking place in the intestine, petroleum will not only prevent this mal-assimilation, but will favor elimination by the proper channel, the bowels. When, from whatever cause the constipation of the bowels arises, the oily character of the remedy will contribute materially toward recovery by preventing auto-intoxication. Angier's petroleum emulsion, the most perfect petroleum remedy, is indicated not only in the foregoing diseases, but is one of the most valuable agents in the treatment of tuberculosis. It relieves in a most surprising manner the harsh and irritating cough and checks the night sweats and the distressing diarrhœa. So long as nutrition is below par, so long are we to witness a failure in hypodermatic medication. But with remedies like this. to which there can be no reasonable objection because of any tendency to derange digestion, cause irritations, or interfere in any way with the normal secretions, a new era has come in the treatment of this dread disease. The effect of Angier's petroleum emulsion upon the nervous system, while perhaps negative in character, will accord in the main with its general action upon the economy and a favorable effect upon the sensorium will be taken as an indication that the estimated benefits from its administration are in process of realization, and, that its therapeutic value is an absolute, demonstrable fact. The action of the petroleum in Angier's petroleum emulsion upon the circulation and temperature, are in direct relation with its influence upon poisonous products in the alimentary canal, and will depend largely upon its solvent action, which appears to be very great. In pulmonary troubles and consumption, a favorable influence has been observed upon the temperature and pulse when given in full does after eating. In catarrhal and pulse disorders of the pulmonary apparatus, with a suitable diet and appropriate hygiene, Angier's petroleum emulsion will do much as an adjuvant towards favoring a return to the health standard. In bronchitis the cough disappears and the emulsion produces an immediate reduction of congestion in the bronchi, followed by a rapid disappearance of the inflammation and muco-purulent discharge.

The sedative and antiseptic properties of Angier's petroleum emulsion commend it for the relief of disorders of the digestive tract. In this class of disorders, we must bear in mind its claims as a non-irritating lubricant, together with its known solvent properties, by which the elimination of effete matter will be favored while poisonous products will be destroyed or held in suspension and by which absorption will be prevented. In such instances we are warranted in assuming that more or less congestion exists, and knowing that increased vascularity means increase in the rate of

absorption of poisons, the remedy in question has proved more useful than the sedatives and astringents heretofore in use.

For use in the hot months, when other oils are rendered practicaly useless on account of their tendency to nauseate and distress, Angier's petroleum emulsion has a large field of usefulness. It is the experience of physicians generally that during the summer months the problem of what to give consumptives and patients suffering from summer complaints and wasting disease is a serious and perplexing one. The animal oils, on account of their sickening odor and taste, are apt to be offensive to the palate and intolerable to the stomach. A highly refined petroleum like that found in the emulsion in question, which contains also the hypophosphites of lime and soda, does not set the stomach in revolt, but soothes the mucous membranes, cleansing away foul mucus and leaving the digestive organs in a more healthy condition to perform their functions naturally. From a scientific standpoint, this combination of petroleum and the hypophosphites is a rational remedy for the above diseases and the medical profession is giving it more and more the recognition that its proved merits deserve.

The Hernia Guarantee and the Minimum of Confinement After Operations for Appendicitis With and Without Pus.

Dr. G. M. Edibohlis (Medical Record, May 13, '99) discusses this subject and reaches the following conclusions:

1. Sufficient attention has been called to the technique of the perfected operation for chronic appendicitis to render ignorance thereof inexcusable on the part of any one practicing abdominal surgery.

2. The technique for the operation for acute appendicitis with pus still forms a subject for discussion.

3. The value and universal applicability of the gridiron incision of McBurney in cases of acute appendicitis with pus, though dwelt upon of recent years by a number of American surgeons, is not in practice sufficiently appreciated.

4. Nor is the fact too widely known that the duration of confinement after operation for chronic appendicitis need not exceed a week, and may indeed be considerably shorter.

5. The duration of confinement after operations for acute appendicitis with pus, excepting cases in which fecal fistulæ form, need rarely exceed two weeks at the outside. Since putting into operation the technique above outlined, the longest period of confinement in the writer's practice has been in one case fifteen days. In that case five separate intraperitoneal pus pockets had to be drained, and the wound was not ready for secondary closure until fourteen days after operation.

6. Hernia need no longer be dreaded after operations for appedicitis, acute or chronic, with or without pus.

7. There seems to be no longer any good reason why all patients suffering from appendicitis, acute or chronic, should not have the benefit of operation.

Reinfection in Syphilis.

Over fifty years ago Ricord (British Medical Journal) stated that syphilitic infection might become progressively attenuated and die out, and therefore that a patient might contract syphilis twice, in the same way as variola. He, however, denied that this theory was supported by clinical evidence. Diday, on the other hand, in 1862 published a series of thirty-two cases of so-called repeated syphilis, and stated that a patient might contract syphilis several times, whether he had undergone complete disinfection and became infected afresh, or whether virus of great intensity was added to the sum of infection in a patient incompletely infected by an attenuated virus. The divergence of opinion on this subject was increased by the fact that it was enough for a patient to develop an ulcer resembling a chancre in order to diagnose reinfection. Fournier, however, in 1868 stated that any syphilitic patient at any period of the disease might develop without reinfection ulcers resembling a primary sore, and pointed out that ulcers of the balano-preputial furrow are liable to inflammatory induration, which is often difficult to distinguish from syphilitic induration. Therefore, in order to diagnose true reinfection Fournier considered three conditions necessary: (1) An undoubted first attack of syphilis; (2) a period of quiescence, complete or interrupted only by tertiary symptoms, and having lasted several years; (3) a new infection characterized by a fresh indurated chancre followed by undoubted secondaries. Fournier, however, stated that he had never seen such a case.

Cases of what must be regarded as undoubted second infection in syphilis have, however, been recorded by Hutchinson, Zeissi, Ogilvie, and others, and more recently by Du Castel and Tarnowski. Du Castel's case was that of a man who, in 1892, was treated at the St. Louis Hospital

for an indurated chancre, followed by a pustular secondary syphilide and mucous plaques in the throat. In 1897 he again presented himself at the same hospital with a second indurated chancre, which was followed by a typical roseola. Tarnowski's case was that of a man who was treated from 1886 to 1890 for various cutaneous syphilides and other manifestations of syphilis. In 1897 he contracted soft sores, which were followed in due course by a typical polymorphous syphilide consisting of macular, papular, and pustular eruptions. One of Fournier's conditions, namely, that an indurated chancre must be present, if this case can be accepted, would be proved to be unnecessary. This will be the more readily believed by those who entertain the opinion that first attacks of syphilis are frequently followed by soft sores.

Trauma and Tuberculosis.

Urban (Edinburgh Medical Jonrnal) speaks of the indirect consequences of trauma, especially maligant neoplasms and tubercle. He first traces the tuberculosis infection of the body, starting from the lungs, intestines, the genitals, &c., and states that these various processes are unable to explain certain aspects of tuberculosis, such, for example, as the bone and joint lesions.

With regard to wounds, the writer has never seen a recent wound become tuberculous. This tuberculosis was a purely local affair. In contradistinction to large recent wounds, small excoriations, fissures, and the like, may readily become tuberculous—for exampie, the excoriated surface of a washerwoman's fingers which have been exposed to linen, &c., soiled by tubercular material, particularly handkerchiefs.

A similar state of affairs obtains in anatomical tubercle so-called, and in general it might almost be said that the smaller and more insignificant the wound the greater the liability to infection. This immunity of large wounds has been explained by the fact that the extraordinary attempts at repair on the part of nature incidentally clothe the wound with great power of resistance.

Returning to the bone and joint lesions, the author states that these accidents must have been preceded by the occurrence in the blood of the bacillus. As a minimal infection could occur more readily after a slight inoculation of the skin than through the pulmonary or intestinal route, the author appears to believe that seemingly latent cases of tubercle date from these minimal cutaneous inoculations.

The New York State Examination.

The Examining Board of the State of New York furnishes the following statistics:

Total number of candidates in the May licensing examination,	131
Successful,	111
Rejected	20
Percentage of rejections,	15.27
Percentage successful,	84.73
Total number of honor candidates,	10
Highest general average,	95.3
Rejections in anatomy,	12
Rejections in chemistry,	7
Rejections in surgery,	3
Rejections in pathology and diagnosis,	9
Rejections in physiology and hygiene,	3
Rejections in obstetrics,	3
Rejections in therapeutics, practice, and materia medica,	9
Rejections in one topic,	10
Rejections in two topics,	3
Rejections in three topics,	1
Rejections in four topics,	3
Rejections in five topics,	3

Typhoid Fever Without Intestinal Lesions.

It is generally recognized that typhoid fever is a constitutional disorder, and that while the infiltration and breaking down of the lymphatic structures of the intestine, with secondary ulceration, constitute one of the most characteristic features of the disease, they form by no means the sole lesion.

The Record, in one of its recent editorials states that the typhoid bacillus finds localizations, and is responsible for morbid processes, that must be considered as primary manifestations and not as complications or intercurrent disorders. Among these may be mentioned pneumonia, pleurisy, endocarditis, endarteritis, endophlebitis, meningitis, cholecystitis, orchitis, epididymitis, osteitis, nephritis—in fact, scarcely any bodily system escapes. While in the vast preponderance of cases intestinal lesions are present, there has not been wanting clinical and pathologic evidence of their occasional absence, and it may be that in some cases in which a cause of death has not been discovered, more searching investigation might have succeeded in placing the responsibility upon the typhoid bacillus. This fact may, among other things, explain the apparent rarity of typhoid fever in children. An important help in this connection is afforded by the precipitating and agglutinating influence of the blood serum upon typhoid bacilli: but this must be considered finally as suggestive and corroborative, rather than absolutely conclusive, as it is, while trustworthy, not infallible, so far as is at present known. The decisive test

consists in the detection of typhoid bacilli in the blood or the secretions or the tissues.

A number of cases of typhoid fever have been reported in which intestinal lesions have not been present, but in few has the demonstration been so unequivocal as in one recorded recently by Bryant (British Medical Journal, April 1, 1899, p. 776), in which the serum reaction was present during life and the typhoid bacillus was obtained in almost pure culture from the enlarged mesenteric glands after death. There was also an area of broncho-pneumonia in one lung. The patient was a child twenty months old, and a sister of seven years and a brother of five years also were under observation at the same time, with similar symptoms, including the serum reaction. The likeness in the clinical picture, in the cases of typhoid fever without intestinal lesions, and particularly the presence of diarrhœa in many of them, would indicate conclusively that the symptoms are of constitutional rather than intestinal origin.

The Urine in Disease.

Dr. Formad in a recent issue of the Tri-State Medical Journal says:

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. Albumin in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumin.

3. Every white crystal in urine, regardless of shape, is a phosphate, except the oxalate-of-lime crystal, which has its own peculiar form; urine, alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucous casts, pus, and epithelium signify disease of the bladder (cystitis) or other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of males by finding in it the tessellated epithelium of the vagina.

7. Hyaline casts (narrow), blood, and epithelial casts signify acute catarrhal nephritis. There is much albumin in this condition.

8. Broad hyaline casts and epithelial dark green granules and oil casts signify chronic catarrhal nephritis. At first, much albumin; later, less.

9. Hyaline and pale granular casts, and little or no albumin signify interstitial nephritis.

10. Broad casts are worse than narrow casts, for the former signify a chronic disease.

11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts, or devour them entirely in a short time.

12. Uric acid may, in Trommer's test for sugar, form a peroxide of copper; this often misleading the examiner into the belief that he has discovered sugar. Thus when urine shows only sugar, other methods of examination must be used—preferably the lead test.

13. The microscope gives us better ideas of the exact condition of affairs in examination of urine than the various chemical tests.

Foreign Bodies in the Ear.

Hummel makes the following deductions: (Medical Record) (1) The relation of the normal ear canal to inanimate foreign bodies is entirely without reaction; that is, a foreign body in the ear does not, *per se*, endanger the integrity of the ear. (2) Hasty endeavor at removal is not only unnecessary, but can become very injurious. (3) In all cases not previously interfered with (with few exceptions) foreign substances can be removed from the ear by syringing. (4) General practitioners should never employ anything but the syringe in endeavouring to remove foreign bodies from the external auditory canal. (5) Instrumental removal of foreign bodies from the ear should be effected only by one fully able to examine the ear with the otoscope and acquainted with every operative manipulation in this region.

The "Philadelphia Medical Jornual" and the American Medical Association.

Our Philadelphia contemporary takes a most hopeful view of the future prospects of the Association. It says: "It is character rather than numbers that inspires us with hopefulness. Even in such a matter as personal ethics and dignity there was at Columbus a most noteworthy absence of what has previously been an altogether too conspicuous presence of the guzzlers and 'all-nighters.' There were even strange stories of '*Nothing stronger than lemonade, please, this year!*' and the banquets, even that of the so-called American Medical Editors, were free from stories in which the delight in witless filth has often been an astonishing element of attractiveness. There is plainly to be an end of the 'dry-smoker' and the royster."—*Medical News*-

The "Allenburys" Foods.

These Foods, *par excellence*, are meeting with remarkable success, especially in cases of delicate infants suffering from malnutrition and marasmus. Weak, sickly infants, that have not been able to assimilate any other food have taken the "Allenburys" Foods easily, and have grown well and hearty. These Foods are on the sound scientific principle of a Progressive Dietary. No. 1 Food is for the first three months of life; No. 2 for the second three months; and No. 3, which is a Malted Food, is adapted to infants over six months of age. Such a rational System of Infant Feeding has long been desired; and in England the "Allenburys" Foods are rapidly superseding every other artificial food for infants. That they will meet with like success here is almost certain. The high character of the house of Allen & Hanburys is a guarantee that anything it puts forth will be irreproachable both as regards its scientific value and the purity of its inregdients.

The Superiority of Vaginal Section Over Laparotomy in Surgical Treatment of Pelvic Diseases in Women.

Dr. J. R. Goffe, editor of the Medical News, read a valuable paper with this title at the recent meeting of the American Medical Association. He said the objections to the abdominal operation are: (1) stitches; (2) adhesive plasters, which are annoying; (3) abdominal supporters; (4) scar; (5) danger of ventral hernia. Great diversity of opinion exists in regard to the closure of the abdominal incision. By vaginal incision is implied, not simply puncture, but free incision longitudinal and transverse, and, if necessary, supplemented by incision posterior to the cervix, giving ample room for manipulation. Vaginal fixation has many objections. Shortening the round ligaments through the anterior vaginal fornix is the ideal treatment of retrodisplacements. No disadvantages during pregnancy occur and it is superior to suspensio-uteri and the Alexander operation. The objections to the Alexander operation are many, because (1) of its limited application; (2) the ligaments are often absent or weak; (3) two unslightly scars are caused; (4) there is danger of subsequent hernia, which has frequently occurred. Diseased appendages may be removed, adhesions broken up, malpositions corrected, and pelvic abscesses treated thoroughly, satisfactorily, and safely by vaginal incision. If both adnexa are destroyed total hysterectomy is indicated. The intestines may be injured, but this accident also occurs during abdominal operations, but less frequently in vaginal than in abdominal section. Ectopic gestation, ovarian dermoids, fibroid tumors of the uterus may all be dealt with by way of the vagina. The pain is much less and the convalescence smoother than after abdominal celiotomy. The simplicity, facility, and comfort of this method commend to it every operator.

Drugs in Nervous Dyspepsia.

In this affection Dr. G. P. Murray, in the "Medical Record," advocates the use of nerve sedatives, especially sodium bromide, which can be associated with vegetable bitters, preferably nux vomica, and if there is much gastric fermentation, accompanied by feelings of exhaustion and "sinking sensations," there should be added to the prescription carminatives, such as tincture of capsicum, cardamon, Jamaica ginger or peppermint.

If there is much anæmia sodium bromide appears to be of no value, while if hyperacidity exist alkalines are indicated, of which sodium bicarbonate is the most useful. This may be combined with bismuth if there is gastric irritability and hyperesthesia, or even intestinal indigestion.

Acids, on the other hand, are beneficial in cases where there are disturbances of the liver with oxaluria, although not so efficient in case of pure neurasthenia.

Characteristics of Nervous Vomiting.

According to Boas, the following is diagnostic of the nervous origin of vomiting: The ease with which the vomiting is accomplished. Its independence, as a rule, of the quality and quantity of the ingesta. The capriciousness with which certain food stuffs, often of the most varied and bizarre kind, are retained to the exclusion of others. The existence at times of elective vomiting of certain substances, which are expelled from a very varied mess of food stuff. The unconcerned manner in which the patients bear this habitual condition. The tolerance of the organism against the inanition tendency of the habitual vomiting. The extraordinary influence of the most trival external or internal circumstances. The frequent occurrence of vomiting independent of meals, often when the stomach is empty or apparently so. The appearance, at the same time with the vomiting or at varying periods, of other neurotic symptoms. The absence of any secretory or motor disturbance of the stomach.

The Uses and Effects of Gude's Manganiferous Iron Peptone.

By Dr. Julius Heitmann. Vienna.

The employment of iron preparations both in essential anæmia (chlorosis), and in the symptomatic forms of this affection produced by severe losses of blood, dates from the earliest times. Long before the chemical relation of this effect was known, these remedies were administered on the ground of pure empirical experience.

When Hannon pointed out the high significance of manganese, as well as of iron, with regard to the absorption of oxygen by the blood, and when this discovery was confirmed by Ruehle, efforts were made to produce, by combination of both remedies, preparations which would best fulfill the therapeutic indications in all directions.

Former attempts of this kind failed to give the desired results. The aim was to combine both metals in such a form as would enable them to be absorbed throughout the entire extent of the alimentary canal, and at the same time be devoid of disagreeable taste which would prevent their prolonged administration. After a series of experiments made in this direction I found in the preparation discovered by Dr. A. Gude (Pepto-Mangan—Gude), a remedy which fulfilled the above requisites, and can recommend it most heartily.

Pepto-Mangan—Gude is a clear, dark, wine-red fluid, having an agreeable, nonmetallic, astringent taste. The latter property gives it a great advantage over other similar preparations, for the remedy is always taken with pleasure, and may therefore be administered for a long time without exciting the disgust of the patient. No irritation of the stomach is produced, nor is the digestion disturbed in the least respect; indeed, as regards the latter, a stimulation of the long-absent appetite could be demonstrated within a short time.

The Pepto-Mangan—Gude, usually mixed with some water, is prescribed in doses of two or three dessertspoonfuls, increased to as many tablespoonfuls per day. An especially agreeable manner of administration is by addition of cold milk, which then assumes a light chocolate color and an agreeable taste. Prescribed in this form we obtain from this preparation everything that could be expected from a remedy for anæmia. The Pepto-Mangan—Gude may also be mixed with white and sweet wines, excepting the red wines which contain tannic acid, and an occasional change in the manner of administration is sometimes of advantage, especially in the case of children.

The diet, during the use of this preparation, should consist of milk, meats—especially ham—fowl, soft-boiled eggs, and other easily digested foods. On the other hand, sour and fatty foods, red wines, and raw fruits are to be avoided.

The remedy is to be administered for a number of weeks, especially in cases of chlorosis, but in the case of young girls up to 12 years of age it is best to commence with a daily dose of two teaspoonfuls (ten grammes). In adults the dose of the Pepto-Mangan—Gude may be increased in a few days to one tablespoonful twice or thrice daily, or even to ten or twenty grammes. The preparation should be well protected from the light, and preserved in a cool place in a well-stoppered bottle.

I have employed the Pepto-Mangan—Gude with much success both in chlorosis and in cases of anæmia in girls and women due to loss of blood, menorrhagia, metrorrhagia, inflammation of the pelvic organs, peri- and parametritis, or prolonged leucorrhœa. In almost every instance I observed within a short time increase of appetite, improved nutrition, healthier color of the face, and increase of weight. I was surprised to learn how much more readily the Pepto-Mangan—Gude was taken than similar preparations, without ill effects even after protracted use.

To illustrate my remarks I will cite a few cases:

I will first report a case of chlorosis treated with this remedy, which was under constant observation. The patient, a school girl aged 16, began to menstruate one year ago, but after appearing regularly for three periods the flow suddenly ceased, probably in consequence of mental overexertion, and symptoms of chlorosis soon developed. The various preparations of iron were tried, but were either not well borne or excited so much disgust that they were discontinued by the capricious patient. A milk cure was prescribed, but followed for only a short time. When, however, I resorted to the Pepto-Mangan—Gude I was surprised to find that the girl took it willingly and that it was well borne. She made a rapid recovery, and after the use of two bottles had regained her former healthy color, while her strength and menstruation returned.

Case II.—A married lady, aged 24, had acquired—apparently of abortion at a very early period—an intense peri-and parametritis with an exudation of the size of a child's head. The latter disappeared almost completely under suitable treatment and rest, so that only a slight induration was present in the parametrium after three

weeks. Owing to the considerable anæmia and loss of appetite, however, the patient recovered very slowly, and for this reason I ordered the Pepto-Mangan—Gude. A few days after its use the appetite reappeared, recovery ensued rapidly, and five weeks later her health was completely restored.

Case III.—A married lady, aged 30, had suffered from leucorrhœa due to catarrhal inflammation of the vagina for two years, and although the local trouble had been much relieved she continued pale and weak. As her chlorotic daughter at the time was taking the Pepto-Mangan—Gude with marked benefit, I advised her also to try this preparation. She followed my advice, and after fourteen days the weak, sluggish, and pale woman seemed as if transformed. She has since regained her former health.

These few cases, which were under continued observation, will confirm what has been said above regarding the manner of application and effect of the Pepto-Mangan —Gude. I regard it as superfluous to cite other cases, since a few closely observed cases teach more than a host of superficial observations.

On the ground of my experience I consider myself warranted in directing the attention of physicians to this remedy, and feel convinced that further trials will give equally favorable results. Even in cases where local treatment is necessary the Pepto-Mangan—Gude will prove a valuable auxiliary in our treatment.—*Allgemeine Wiener medizinische Zeitung*, xxxvi.

Nervous Dyspepsia.

L. Herzog (Hospital, May 27, 1899). We often find motor insufficiency with hyperacidity leading later on to a normal or subnormal acidity. It is rare to find purely sensory changes, but if the motor power remains good variations of acidity may be present, and even in the empty stomach disturbances may arise. Murray notices the great variations in acidity in this disorder, together with the eructations and vertigo, which appear specially frequent, as well as nausea, though actual vomiting is rare. The stomach condition in the gastric crises of locomotor ataxia have been examined by several authors. Douglas, in three cases, found that the amount of free HCl. was small; the total acidity was not more than that in health, and that blood appeared several times in the vomit. In a later paper he gives detailed analyses, and concludes that during the crises the stomach pours out a quantity of fluid slightly inferior to that in health, and without any excess of acid or HCl. The blood clearly cannot come from an ulcer, for between the crises the digestion may be painless and perfect, and nothing of the kind has been found post-mortem. It seems to him possible that the bleeding may come from engorged veins. J. Michell Clark found in a case of his an absence of HCl. during the crises, together with a large amount of lactic acid. In the intervals there was rapid digestion and an excess of HCl. after meals.

Points in Favor of the Use of Alcohol and Their Refutation.

Dr. Bienfait according to the British Medical Journal offers the following objections to the use of alcohol:

1. Is alcohol a digestive? No; its ingestion produces a passing excitation; interrupts the proper action of the muscles of the stomach, because alcohol acts as an anesthetic after having irritated the walls of this organ; and it drives the blood to the skin, and so interferes with the action of the gastric juice.

2. Is alcohol an appetizer? No; it produces an excitatoin of the stomach which causes a sensation taken for hunger.

3. Is alcohol a food? No; it does not correspond to the definition of a food, and the heat that it seems to produce does not serve as actual warmth.

4. Is alcohol heating? No; it causes a flow of blood to the skin and a lowering of temperature.

5. Is alcohol a stimulant? No; In no case, either physical or mental.

6. Is alcohol a protector against contagion? No; it predisposes the body to contagion.

7. Can we live without alcohol? This idea that we cannot live without alcohol is a prejudice that numerous facts contradict.

8. Is alcohol good for children? It should never be given to children.

9, Does alcohol increase longevity? According to reliable statistics alcohol diminishes longevity.

Meeting of The American Electro-Therapeutic Association.

The American Electro-Therapeutic Association will hold its Ninth Annual Meeting at Washington, D. C., Sept. 19, 20, 21, 1899. The President, Dr. F. B. Bishop, appointed the following committee of Arrangements:

Drs. D. Percy Hickling, Chairman, Jos. Taber Johnson, G. Lloyd Magruder, Z. T. Sowers, Robert Reyburn, G. Betton Massey, Chas. R. Luce, Elmer Sothoron, Llewellyn Eliot, Clifton Mayfield.

Willard's Hotel has been chosen for the

headquarters and special rates have been made for all interested in this meeting.

Many able papers have been promised and a very successful scientific meeting is assured. There will be a large and varied exhibition of Electro-Therapeutic apparatus in Willards Hall during the meeting of the Association. Willards Hall is well adapted for this purpose, as in not only adjoins the headquarters but communicates with it by a corridor, there is also a large entrance directly from the street. The committee also promises a very pleasant social program, including a reception by the President of the United States, an excursion to Mt- Vernon, Arlington and Alexandria—a Buffet lunch to be served at Alexandria,—an evening visit to the Congressional Library to be viewed under electrical illumination. Provisions have also been made to visit the War, State and Navy Department, the United States Treasury and other public buildings.

The Journal of the American Medical Association.

Dr. Matthews, in his presidential address disagreed entirely and unequivocally with the advocacy of a censorship in the management of the Journal, believing that if one article read before the association was refused publication, the pledge and obligation of the association were violated; the reader should select the wheat from the chaff. In connection with the business interests of the Journal he suggested that a suitable man, preferably a doctor, be selected to travel, with the object of increasing the membership of the association. He believed there were many hundreds of worthy physicians in the United States, ignorant of the manner of becoming members, who would readily join the mother society if properly approached. He believed that the added membership would more than pay the salary of such an officer.

New Hampshire Medical Society.

The New Hampshire Medical Society held its one hundred and eighth anniversary meeting in Concord, May 25th and 26th, 1899, and an unusually long program was presented, nearly all of the papers were read and discussed, others were read by their titles and referred to the committee on publication. The attendance was large and the meeting proved interesting to the members and delegates.

The following officers were elected:

President—Charles R. Walker, M. D., Concord.

Vice-President—William T. Smith, M. D., Hanover.

Treasurer—M. H. Felt, M. D., Hillsborough Bridge.

Secretary—Granville P. Conn, M. D., Concord.

Executive Committee—Dr. F. A. Stillings, Concord; Dr. George D. Towne, Manchester; Dr. W. T. Smith, Hanover; Dr. F. E. Kittredge, Nashua; Dr. Ira J. Prouty, Keene; Dr. A. C. Heffenger, Portsmouth; Dr. G. W. McGregor, Littleton.

Committee of Arrangements—Dr. D. Edward Sullivan, Concord; Dr. Arthur K. Day. Concord; Dr. Frank W. Grafton, Concord: Dr. Sibley G. Morrill, Concord; Dr. George H. Parker, Concord.

Anniversary Chairman—M. S. Woodman, M. D., West Lebanon.

A Council of twenty members and a Board of Censors which includes the Board of Medical Examiners and of Registration for the State.

The next annual meeting of the Society will be held in Concord, May 31st and June 1st, 1900. G. P. Conn, M. D.,
Secretary.

Functional Neuroses.

In a paper read before the New York Academy of Medicine, November 25th, 1898, by H. J. Boldt, M.D., of New York, attention is called to the important fact that general hygienic and dietetic treatment, with proper exercise, must not be neglected. Dr. Boldt's plan of treatment for the impoverished blood in such cases is as follows:

To overcome the anæmia so often associated in this class of cases, I have found the solution of bromide of gold and arsenic to be among the most serviceable drugs at our disposal; beginning with five-drop doses in a glass of water after meals and increasing one drop daily until from fifteen to twenty drops are taken. The red blood corpuscles and the percentage of hæmoglobin are rapidly increased with the use of this drug. Occasionally, however, we do find a patient with whom it disagrees, when we must resort to other remedies. The gold solution has also a decided effect on the inflammatory conditions of ovaries. This was pointed out by an author in a European journal ten or twelve years ago and has been employed during that period by me. Since the introduction of Dr. Barclay's solution, which is a combination with arsenic, it has been used with better effect than the chloride of gold and sodium in pill form. Barclay gave the name arsenauro to his solution for the sake of brevity.

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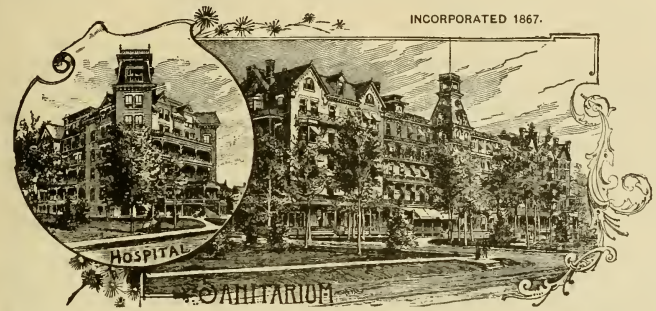

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Large fan for winter and summer ventilation. Absolutely devoid of usual hospital odors. Delightful surroundings. Lakeside resort. Pleasure grounds, steamers, sailboats, etc. Trained nurses of either sex furnished at reasonable rates.

J. H. KELLOGG, M. D., Supt., Battle Creek, Mich.

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Literature on Application.

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Pelvic Contraction in American Women.

Dr. J. W. Williams (New York Medical Journal July 1, '99) recently read before the Gyæcological and Obstetrical Society of Baltimore a paper founded on the first thousand confinements in the Johns Hopkins hospital, which rather tends to lessen one's confidence in the freedom of our women from undersized pelvic straits. Dr. Williams' paper is published in the May number of the new journal called Obstetrics. There has, to be sure, been a lack of unanimity among our American obstetricians as regards this point. The late Dr. Lusk, for example, is cited by Dr. Williams as stating that pelvic contraction is very rare in native-born American women, while rickets and osteomalacia are absolutely unknown. Hirst, on the other hand, is cited as saying that the frequency of contracted pelvis has been decidedly underestimated.

Dr. Williams finds that there is a great diversity in the percentages of pelvic contraction in the statistics from various places in the same country. In Germany, for instance. they range from 7.9 per cent. in Basle to 24.3 in Dresden; in Austria, from 2.15 to 7.8 per cent.; and in the United States, from 1.13 per cent. in Boston to 11.45 per cent. in Baltimore, as reported by Dobbin. To some extent this diversity seems to be accounted for by variation in the meaning that the term pelvic contraction has for different observers; some of them count as instances of contracted pelvis all those in which measurement is below the standard, while others set down only those in which the deformity is so pronounced as to impede labor. Dr. Williams puts down the Baltimore per centage as somewhat higher than that given by Dr. Dobbin, namely 13.1 per cent., and this, he thinks, corresponds very closely with the average of frequency observed in Germany.

The relative frequency of pelvic contraction in Baltimore, according to Dr. Williams, is in great measure due to the presence of a large black population in that city; 469 of his thousand cases were in colored women. It is the æquabiliter justo minor pelvis that predominates among black women, in whom it is more than five times as common as in white women. This, says Dr. Williams, is not what one would expect, in view of the fact that rickets is extremely common among the negroes of the South, and it is contrary to what is generally stated. Dr. Williams points out the interesting fact that there is a remarkable tendency in black women to a lack of correspondence between the external and the internal pelvic measurements. He properly accords to contraction indicated by external pelvimetry only the importance of hinting at the existence of corresponding contraction internally, but he implies that it rarely has even this significance in black women; he does not hesitate to declare that half of them would be found defective by external measurement, while in the great majority internal pelvimetry would reveal no contraction.

We do not gather from Dr. Williams' study that all his white patients were native American women. It would be strange if they were, for native white women do not resort largely to hospitals when they are about to be confined. All things considered, perhaps the general impression of the rarity of pelvic contraction among American-born women need not be further modified than to restrict it to the white race.

The Tonsils as Portals of Entrance for Grave General Infection.

Jessen, according to Pediatrics, has demonstrated that "rheumatoid" affections as well as crytogenetic septicemia, pneumonia, etc., may quite frequently make their entrance into the economy by way of the tonsils, the surfaces of which may have a normal appearance; in their interior, however, small purulent foci will be discovered, which proves that they have been penetrated by micro-organisms. He points out that infectious diseases running a chronic course, especially scrofulosis, must also be taken into account. The child does not become affected with vegetations of the adenoid tissue of the tonsils, especially of the pharyneal tonsils, because it is suffering from a mysterious scrofulosis diathesis, but an inflammation of this tissue is started by bacterial invasion, and the micro-organisms now pass through the lymph-channels to the eye, ear, face, lips, etc., and excite here new inflammatory processes, which are frequently carried by the fingers to the integument of the whole body.

If now the inflammatory adenoid vegetations are removed by operative interference, the whole scrofulous symptoms disappear very rapidly; if secondary, tuberculosis has not yet occurred, for the reason that the original disease focus has been removed. Jessen reports three personal observations, which illstrate this proposition, while with anti-scrofulosis treatment alone, a very slow improvement only is obtained, and recurrence is not rare. After the operation, it is perfectly proper to use anti-scrofulosis remedies to remove any remnants which may have been left behind; the main point, however, is the removal of the focus of infection itself.

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The Treatment of Whooping Cough.‡

Investigation of a subject often leads to the bringing out of truths we never before considered in connection with a subject. Whooping cough is a disease which is very common, and although the medical annuals each year contain a number of drugs which have been brought out as specifics, yet we find that nearly all the writers on the diseases of children still regard whooping cough as a self-limited affection. Several years ago I took occasion to make a study of the literature of whooping cough with a view of ascertaining the status of opinion among the ablest observers regarding the self-limited character of the disease and of the preference regarding the remedial agents employed.

I shall let it suffice to say that the drugs which have been employed embrace all of the anodynes, antispasmodics and agents of that character, as well as nearly every other kind of drug which can be conceived of. Belladonna I have found to be in the greatest degree of favor among observers, most of whom express their reliance in the curative action of this drug. The bromides are generally esteemed valuable agents. Almost all authors regard whooping cough as a self-limited affection whose course occupies four to eight weeks; while some are silent on this point, others are sure that we possess no means of bringing about a cessation of the disease by medicine. From my experience and study of the disease during the past five years from the standpoint of a sanitarian as well as a medical practitioner, I am confident that whooping cough is not a self-limited affection, and that we can bring about a curative termination by therapeutic measures. The principles of treatment in my hands have been very simple, and I depend upon agents which have long been the mainstay in the treatment of the affection. Balladonna is a remedy which I give from the incipiency of the attack, in conjunction with simple expectorants such as syrup of ipecac and the syrup of tolutan. The following prescription is one which I usually give:

R Tinct. bellad.....gtt. xxxij:
Syr. ipecacuhanna...gtt. xl.
Syr. tolutan.....q. s. ad. zij.

Sig: Teaspoonful every two hours, to a child one year old.

Along with this I give as an antispasmodic the bromide of sodium in doses of five grains every four hours, generally in solution and with unvarying regularity. This tends to cause a longer time to elapse between the paroxysms of cough, and thus we score a decided point in favor of the patient. I have found very material assistance in allowing the Schering's formalin lamp to burn in the sleeping room of these patients. By keeping the flame of the lamp low only one formalin pastile is consumed in three or four hours. This causes little if any irritation and after a short time the child goes to sleep. The inhalation of the disinfectant exerts a decided curative action upon the affection. These patients should be adequately fed; in fact I am very sure that we very often overlook the importance of this matter. They invariably vomit when an attack of coughing comes on, and very often as a result they become emaciated to an advanced degree. When nourishment by ordinary means is inadequate, recourse must be had to peptonized milk and to predigested foods. By reason of the presence of a cartarrh of the bronchial tubes as a necessary part of the disease in question, they very naturally and easily take on pneumonia and other complications. Emphysema as a resultant affection is often seen after an attack of whooping cough which has not been successfully or properly treated. I am, in view of its complications and its possible terminations, always particular to see that parents are cautioned against allowing children to expose themselves to the inclemencies of the weather. Treated on this basis —on the lines laid down—I have notes on one hundred cases of whooping cough. Of these cases seventy-five recovered in ten days from the time they came under treatment; ten cases were extremely delicate children and they were ill for fifteen days; in ten cases complications set in before the treatment was begun; and five were not seen after the treament was fairly begun, but they presumably recovered without incident.

The treatment here advocated brings about a termination of the disease in a period much shorter than any method which I had employed.

‡M. P. Creel, M. D., Medical Review.

Hemorrhage in Typhoid Fever.

A case was reported at the July meeting of the *Charlotte Medical Society*, in which the patient lost one and a half gallons of blood within three days. The man had rather low fever during the first ten days, in fact the highest temperature noted was 103.5. The hemorrhage began on the 19th day and the patient had 13 in all, the total amount being as above mentioned. At the the time of the report the case was getting well fast and the patient though weak was practically out of all danger.

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RESINOL has given me entire satisfaction. Its wide range of usefulness especially recommends it.—LOUIS A. BOORING, M. D., Louisville, Ky.

Am prescribing UNGUENTUM RESINOL with great satisfaction.—J. S. BEAUDRY, M. D., Chicago, Ill.

Have used RESINOL in many cases and am exceedingly pleased with its action.—G. E. WILDER, M. D., Sandusky, Ohio.

I cannot find anything that can take the place of RESINOL.—A. AGEE, M. D., Holbrook, Ky.

I have found RESINOL to be a remarkable cure for almost any type of Sore.—G. D. BOUDOUSQUIE, M.D. Tuscaloosa, Ala.

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Treatment of Hæmorrhoids.‡

"For some time past I have confined myself in my operations to the galvano or Paquelin cautery. To my mind, and for reasons which I will briefly state, I regard it as preferable to any method which I have employed. I have never used the method —once so much in vogue and still in use— that of injection of carbolic acid. The risk of sloughing and embolism seems a valid reason for its avoidance. The time-honored usage of the ligature has serious objections. Death has been known to follow its use from phlebitis and sepsis. Pressure induced by the ligature causing compression of nerve filaments is a source of great suffering. The sloughing away of these same ligatures has its disadvantages. A method which avoids these annoyances and risks must make claim to our serious consideration, and is worthy our attention. It is not vital which cautery is employed, the galvano or the Paquelin, always remembering how easily and unexpectedly cautery apparatus refuses to do its work at the critical moment. A second instrument at hand will sometimes prevent exasperating annoyance, and perhaps failure. Having decided in a given case that rectal hæmorrhoids require surgical interference, care should be taken in preparation of the patient. The parts should be shaven and sterilized. For at least two days previous to the operation the bowels should be thoroughly emptied by the administration of salines, which one I am not particular, only that they are efficient. The rectum may be irrigated two hours previous, care being taken that all the fluid has escaped. When the patient is thoroughly anæsthetized, stretch the sphincter ani muscle sufficient to paralyze its contractility, but do not rupture it. Grasp each dilated vein with a clamp and slowly burn it off, taking particular care that the knife is not too hot. Dr. Skene's clamp is well adapted for this purpose. If the burning and cooking of the tissues are too rapid, they increase the liability of the blood-vessel to loose the plug of coagula, and so induce hæmorrhage. Treat in the same manner any old coagula or exudations in the submucuous tissue and all muco-cutaneous tabs. "After-treatments consists in keeping the patient in a horizontal posture and the daily administration of a saline; not to keep the bowels active with watery stools invites suffering and seriously retards convalescence. Unless there is some searing of muco-cutaneous surface, it is a matter of surprise how nearly painless is the stage of recovery. If pain is present, an anodyne rectal suppository is indicated. From ten days to two weeks usually suffice. True, some may call this crude surgery, and on looking at the somewhat ragged appearance of the parts at the close of an operation one might feel skeptical as to the results. Actual practice dissipates all such forebodings. I have never met with hæmorrhage succeeding an operation. To my mind, the advantages of this method are: It closes the lymphatics, and is not followed by sepsis; the pain and discomfort are reduced to the minimum, usually practically painless; the convalescence is the most rapid and the results the best attainable.

‡Walter B. Chase, Medical Review of Reviews.

The Use of Quinine in Malaria.

Dr. George Dock read a paper on this subject at the Columbus meeting of the American Medical Association. He said (Med. Record, June 10,'99), in the tertian or quartan intermittent form, or any combination or duplication of these, quinine should be given in the decline of the paroxysm if possible, or not later than the end of the apyrexia. The difference depended upon the time at which the patient is seen or the diagnosis made. The dose should be given at one time or in parts at separate intervals, in such a form that absorption might be confidently expected. He had found it very satisfactory to give the full dose in the form of the hydrochlorate, in capsules, followed by fifteen drops of dilute hydrochloric acid. With patients who had been unable to retain other preparation, he had been successful in giving three five-grain capsules half an hour apart, with a small dose of dilute hydrochloric acid after each, with direction to repeat in half an hour if any dose was vomited. The question of quinine in malarial hæmoglobinuria must be settled by careful clinical observation and experiment,and statements regarding it must be given credit in proportion to the accuracy with which the observations are made. In the mean time quinine could be used cautiously if parasites were present, giving the drug in the form most likely to be absorbed, in doses within the limit of safety, and stopping its administration as early as the microscope showed this to be proper. A temporary increase in the severity of the symptoms should not alarm the physician. It was necessarily due to the drug. At the same time that the specific was being given, other methods of treatment must not be forgotten. The quinine was given to check the malaria, not for any particular symptom or complication.

THE "Allenburys" Foods

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The "Allenburys" Milk Foods so closely approximate in composition to the natural food as to supply an artificial diet almost identical with, and in practice found to be a reliable substitute for, the mother's milk. So much so is this the case that an infant can take these Foods and the breast alternately without any disturbance to its digestive organs.

All ordinary substitutes for the mother's milk fail in some important attribute; thus the usual substitute, cow's milk, differs materially in composition, which no amount of mere dilution can correct, being deficient in fat, albumen, and lactose, whilst the casein is in excess. Further, as obtained in towns, cow's milk invariably swarms with bacteria, many of which are pathogenic to the alimentary canal of the infant.

ALLEN & HANBURYS, whilst accepting sole responsibility for the processss of manufacture and the chemical composition of these Foods. wish to add that the further statements above made are based not on their own *ipse dixit*, but on the accumulated experience of members of the Profession who have been good enough to communicate the results of their observations.

THE

"Allenburys" Milk Food, No. 1,

For use from Birth to Three Months.

Is prepared in the form of a dry powder, and is made from cow's milk, from which, after the proximate composition has been ascertained, the excess of casein is removed, and the deficiency in fat (cream), soluble albumen, and milk-sugar corrected. The method of preparation renders this Food sterile, and *boiled* water alone is required in preparing it for use.

Infants reared by hand should be brought up on this Food until they are three months old.

THE

"Allenburys" Milk Food, No. 2,

For use from Three to Six Months.

About this period (three months) it is found that the infant requires, in consequence of the development of the digestive organs, a somewhat more sustaining form of nourishment. This is best obtained not by increasing the amount of indigestible material, as is usually practiced, but by affording in addition to the milk a digested food

This Food contains, besides the constituents of the No 1 Food, maltose, soluble phosphates, and albuminoids derived from whole meal. There is, however, no unconverted starch left in the Food, which at this age the infant would be unable to digest.

These two Foods may be exclusively employed for the first six months of infant life, if the child is to be entirely raised by hand. As is, however, more often the case, the mother herself is able only partially to feed her child, and has to be assisted by artificial nourishment. It has been found by experience that these foods, *par excellence*, can be so combined with a result beneficial alike to mother and child. With the common substitutes this is never found to answer. The natural and the artificial foods disagree, and produce sickness, if the child has not already instinctively refused to take the breast for the more satisfying but indigestible bottle.

After six or seven months the diet should be changed from the **"Allenburys" Milk Food, No. 2,** to the **Malt Food. No. 3,** in which, though the starch is partially digested, yet the predigestion is not carried to such an extent as to leave nothing for the infant's stomach to perform —a course likely to retard the development of the natural digestive powers. *This is the Food so widely used and known for many years past as* **Allen & Hanburys Infants' Food.**

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Closure of the Abdominal Incision after Laparotomy and the Tendency to Hernia.

In the course of time, abdominal operators have reached a proficiency in technique and an assurance in the application of the details of asepsis that have made laparotomy a comparatively facile and safe procedure. There has however remained an objection not foreseen at first, but ever becoming more insistently prominent as the number of abdominal operations increased. Despite the most anxious care and most solicitous technique ventral herniæ occur at the site of the abdominal incision and often make life miserable for the patient. The frequency of the occurrence of hernia has become one of the great sources of opprobrium to modern abdominal surgery and it is not unusual to have patients who do not fear the result of the operation itself hesitate to undergo it because of the fear of the subsequent hernia that they have learned to dread from the experience of friends or acquaintances.

The review of the recent results of post-operational hernia by Dr. John G. Clark of Johns Hopkins Hospital in the recent number of Progressive Medicine* shows that a number of factors which have usually been considered as influencing the production of hernia really have no ætiological connection with it. For instance permitting the patients to get up after 17-18 days does not predispose to hernia and keeping them in bed for longer periods does not prove a prophylactic against its occurrence. The wearing or failure to wear a bandage after operation does not affect the liability to hernia either favorably or unfavorably. Pregnancy following immediately or remotely after operation plays no part in the production of hernia despite preconceived notions to the contrary.

It is evident then that the occurrence of ventral hernia after operation is mainly due to the method of closing the abdominal wound, despite all that has been said by certain gynecologists abroad as to the advantage to be derived in this matter from making the incision through the rectus muscle. Dr. Clark, from his experience at Johns Hopkins as well as his records of the subject decides in favor of the incision in the linea alba. Two things are necessary to lessen the tendency to hernia in closing the incision. First the fascia, *i. e.*, the aponeurosis of the recti muscles, must be carefully brought together so as to secure complete and firm continuous union along the line of section. The essential point in placing the sutures is to catch enough of the aponeurosis to firmly bring the borders of the fascia not only into complete coaptation but also to slightly elevate them into a median ridge. The coaptation of the fascia must be especially exact at the lower end of the incision when the liability to hernia is greater because the layers of fascia are fewer.

The second requisite for a firm cicatrix is to secure healing *per primam*, and this is best secured by leaving no dead spaces in which blood or lymph may collect to become infected, and by allowing no penetrating cutaneous stitches through which micro-organisms may penetrate from the surface despite the most careful precautions. On the whole, this subject of the avoidance of hernia by a careful technique in the closure of the abdominal incision would seem to have reached a development that leaves very little to be desired, aud it is evident that it is only in patients with especially relaxed tissues or with natural tendencies to hernia that the operator may feel exempt from responsibility in future cases of this annoying sequela.

*Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D. Volume II. June, Lea Brothers & Co., Philadelphia.

The Voice in Diagnosis.

A most excellent paper with this title was read by Dr. Alexander J. C. Skene before the Brooklyn Medical Society, reported in the N. Y. Medical Journal. Dr. Skene calls attention to the three factors in the production of the voice. the larynx, the respiratory system, the innervation, and back of all this the psychological mainspring.

The different types of natural voices, though a very complex thing, is well classified and arranged. The function of the larynx being controlled by the brain and nervous system, the voice expresses the state or attitude of the mind more truly than the words.

"The tongue may lie but the larynx tells the truth." "It was not what he said, but the way he said it." How often we hear the latter expression, and how real and true is it.

The various changes in the voice are taken up and discussed in order and the fact is well brought out that the physician to be a successful man must be careful and learn to notice the smallest indication in regard to a patient under his care. Dr. Skene was very much complimented, in the discussion which followed, for bringing up the subject in so interesting a paper.

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Toxic Properties of Beef Tea.

Modern Medicine in one of its recent editorials thinks it is surprising that physicians, knowing the toxic character of beef tea and meat extracts of all sorts, continue to prescribe meat extracts, broths, bouillon, and similar preparations in all sorts of conditions. It is indeed especially surprising that such pseudo foods should be recommended in cases of acute general toxemia such as is present in typhoid, pneumonia, diphtheria, and allied conditions. An eminent French surgeon not long ago remarked, "Beef tea is a veritable solution of ptomains." The analysis of beef tea shows that it contains urea, uric acid, creatinin, and a variety of other toxic substances. Grijins has shown that solutions of urea have a most destructive effect upon red blood-corpuscles. Such solutions cause the corpuscles to swell up and burst, as they do when exposed to the action of distilled water.

A most remarkable fact respecting solutions of urea is that the addition of cloride of sodium in sufficient quantities to give the solution the same specific gravity or osmotic tension as the blood itself, does not in the slightest degree prevent this destructive action upon the corpuscles, thus showing that its noxious qualities are specific, and that it is not, as was suggested some years ago by Bouchard, a comparatively neutral and innocuous substance. An extract from the tissues of a dead and decomposing animal is about the last thing that ought to be given to a patient who is already struggling against the toxic influences of a flood of systemic poison. In the juices of fruits, nature has given us a source of energy in the most available and acceptable form. Fruit-juices of some sort may be recommended as preferable in every condition in which beef tea might be considered a desirable food. Properly prepared fruit-juices, preserved by sterilization without fermentation, actually present the body with stored energy in a form available for immediate use; whereas, beef tea is simply a solution of products whose energy has been exhausted, and acts merely as an excitant without really augmenting the bodily energy to any appreciable extent.

Tubercle Bacilli in Butter.

Dr. Rabinowitsch (British Medical Journal) refers to the investigations into this subject, and reports a research carried out by Kock's Institute. In eighty specimens previously investigated by the author, tubercle bacilli were never found, but in 28% a bacillus resembling the tubercle bacillus. As a considerable discrepancy thus existed between the investigations of other observers and those of the author, fifteen more samples were examined in May last. Only two of the samples came from the same place, and both of these contained living and virulent tubercle bacilli. This led to a further examination of the samples coming really from the same source, but distributed in different places, and in 70% genuine tubercle bacilli were found. A further investigation of butter from the same source, undertaken in October, yielded 100% positive results, whereas samples obtained from another distributing firm showed no tubercle bacilli. The butter was melted at from 32 deg. to 36 deg. C., centrifugalized, and the free fat deposit and lowermost layer of fluid injected into animals. Thus it was found that one considerable butter firm was distributing butter containing the tubercle bacillus. The author would explain the difference between the results of these researches and those of other observers by supposing that the samples of butter collected from different places really came from a single source. When samples are obtained from different sources the tubercle bacillus is rarely found in butter.

A Case of Yellow Fever.

One case of yellow fever has been reported from New Orleans. A commission of health officers from the three adjoining States of Louisiana, Mississippi and Alabama, was appointed at once to look into the matter and report in regard to any danger of an epidemic. The commission made a most careful search but could find no suspicious case in the city and were unable to determine, precisely, the source of infection in the one case reported. They advise against any quarantine at present as being entirely unnecessary. Havana in the hands of an American cleaning committee will be worth millions to our southern seaports, at this season of the year, she has been sending out the yellow plague by the ship load, but this year the city is practically free from the disease, and the sanitary condition much improved.

This has been accomplished in less than a year by American methods and men.

The Phosphates of Iron, Soda, Lime and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals. (See page xvi.)

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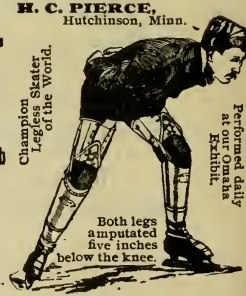
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Morphine in Cardiac Disease.

Toogood (Medical Times) has administered the drug chiefly in the distressing cases of heart-disease in which digitalis, strophanthus and convallaria were without beneficial effect upon the heart, and acted as irritants upon the stomach. In cases in which there was extreme irritability and irregularity in rhythm and in pulse-volume, with extreme dyspnœa and sleeplessness,and with the urine scanty in amount and albuminous, a hypodermic injection of one-fourth grain of morphine or from 10 to 15 minims of the liquor morphine, had the most gratifying effect, causing the pulse to become strong and regular, the œdema and dyspnœa to disappear, the urine to become normal in amount and character, the albumin to become decidedly lessened or to disappear. No accident occurred in a large number of cases. The beneficial effects are attributed to the action of the morphine upon the nervous apparatus of the cardiovascular system, both central and local, bringing rest to the overstrained organ and allowing it a chance of developing recuperative power.

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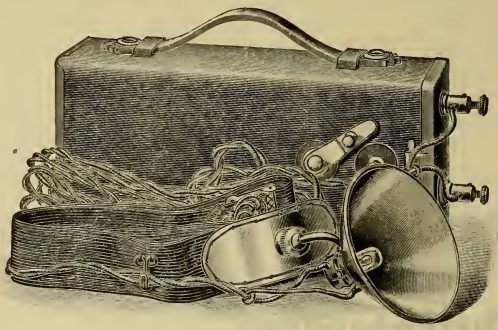

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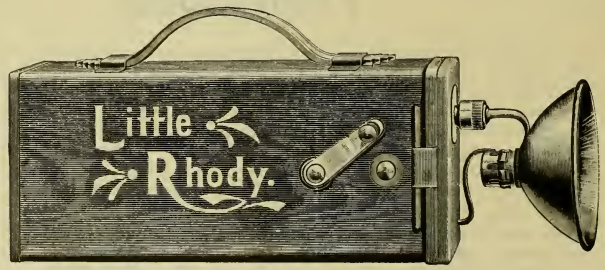

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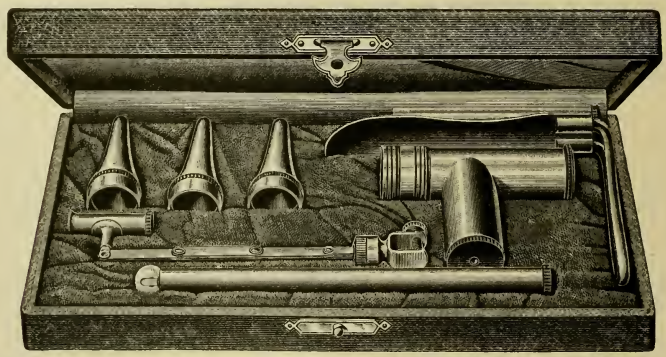

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Hemorrhagic Malarial Fever.

By Wm. Egleston, M. D., Professor of Anatomy Medical Department University of the South, Sewanee, Tenn.

Hemorrhagic malarial fever is that form of pernicious malaria characterized by hemorrhage from some part of the body. Usually it is an hematuria, or, more properly, an hemoglobinuria, though the bleeding is frequently from the bowels and occasionally from the uterus, the stomach and the nose. Coupled with this hemorrhage are always the other intense symptoms of pernicious malaria.

This disease is endemic in many portions of our Southern States, and during certain seasons and under certain conditions becomes epidemic. The following observations are collected from a series of cases which came under my care during a severe epidemic in lower South Carolina in the Fall of 1898 just past. In this locality the disease has certainly increased in frequency and severity within the last thirty years. Why this is so it is not easy to say, unless, indeed, it is explained by the fact that more of the land is being brought under cultivation year by year. and the woods around the swamps and water-courses are disappearing as a consequence, and thus leaving exposed the breeding places of the malarial hematozoa. Certain it is beyond doubt that the dissemination of the malarial poison is markedly influenced by the extent of wooded land that immediately surrounds those damp low spots where it is produced. And the history of the eucalyptus tree on the Roman Campagna would also seem to indicate that the presence of trees is not only an obstacle to the dissemination, but in some way an inhibition to the production of the malarial poison. In epidemic form this disease always appears in those seasons characterized by a general increase in the number and severity of all forms of malaria. It belongs to the autumnal type of malarial infection, and its frequency is prononnced in the months of September, October and November. My observation is that the disease follows as a sequel to chronic neglected malaria. And I emphasize neglected, for there is almost unfailingly a history of long continued chills and fever, which inquiry will show have been allowed to continue from week to week untreated, if not entirely unheeded. The larger per cent. of cases are found among the whites, though the negro is by no means exempt. Male and female are alike susceptible; the percentage of mortality, however, being decidedly preponderant in the latter. The *hematozoa malariæ* is readily demonstrable microscopically in the blood of patients suffering with the disease. One attack offers no immunity, and if anything seems to predispose to others. And as a rule the subsequent attacks are severer and less readily resisted and rallied from.

The hematuric form constitutes so large a part of all forms of hemorrhagic fever, that the symptoms, course, and treatment, of this form will be considered as typical of the disease. The symptom which first calls the attention of the patient to this affection is, of course, the hemorrhage. And this too is generally the first symptom until now adjudged sufficiently serious to call for a physician's services. The hemorrhage is in the form of bloody urine, and this always makes its appearance after a chill severer and more prolonged than any preceding. This bloody urine is usually scant and of a color shading from bright red to a port wine, according as the hemorrhage is copious or limited. Albumen is present to a greater or less extent. With the appearance of the hematuria come raging and uncontrollable nausea and vomiting; decided jaundice (or a marked deepening of a previously existing jaundice); fever of about 104 deg.; frontal headache, and lumbar pains. Constipation is always present; intense thirst, profound prostration and marked anxiety and concern on the part of the patient are other constant symptoms.

The course of the disease is fairly regular when uncomplicated. The urine remains scant and bloody for 24 to 48 hours, its color shading gradually in that time from a deep red to a lighter color, and at times becoming almost clear. With the next malarial paroxysm, however, it becomes at once deeply red as formerly, and again clears off to a greater or less extent in the interval. With the cessation of the paroxysms it resumes its normal appearance and condition, though traces of albumen may be found well on into convalescence.

The paroxysms conform to no law, repeating themselves irregularly and frequently during the first stages of the disease and gradually, in favorable cases, returning at longer intervals and with diminished severity until they finally disappear about the tenth day.

The nausea and vomiting which are the most distressing symptoms of this condition, appear with the first hemorrhage and seem to become aggravated hour by hour. Bile is vomited constantly and in large quantities during the first 48 hours, and after this there is only intense retching and little if any vomitus. This nausea and vomiting are intensified, as is the hematuria, by each succeeding paroxysm, but in the intervals it cannot be said to decrease to any marked extent. So raging is it that during the first 48 hours the patient only rarely has ten minutes relief at a time. As the paroxysms cease so also this symptom wears off.

The fever after the initial paroxysm, falls from 104 deg. to about 100 deg., and remains within a degree of that mark until the supervention of another paroxysm, when again it reaches or passes its former point, to again fall in the interval to about 100 deg. It will be observed that these cases are typical remittent forms of malaria. With the disappearance of the paroxysms the fever likewise disappears and within ten days, as a rule, the temperature is normal. Subject, however, during the first weeks of convalescence to slight and unimportant exacerbations.

Jaundice deepens from the onset, and the patient's skin and conjunctivæ become, in many cases the color of old gold. This jaundice does not wear off readily and usually persists even after complete recovery.

The headache, lumbar pains and intense thirst disappear in company with the more acute symptoms. Ten days to two weeks will usually cover this acute period, and after this time the patient can be said to enter upon convalescence. Convalescence is long continued and tedious, and in no other disease does one rally so slowly from the resulting prostration and general vital depression, so profound are they. Even the briefest and most satisfactory cases leave emaciation, anæmia, enervation, anorexia, and a train of lesser ills as a testimony to the severity and intensity of the blood dyscrasia that characterizes this disease. And as a heritage of the severer forms these ills become not infrequently diseases which the patient is to battle with (often unsuccessfully) in years to come. Relapses during convalescence are frequent and highly dangerous.

In the severer and unfavorable cases the course of the disease is one indicative of marked and rapid blood degeneration. Here the system seems to be overwhelmed with the poison. The urine is almost syrupy in appearance and deeply reddish black. It is scant and highly albuminous. Jaundice deepens rapidly and perceptibly. Nausea and vomiting are continuous and exhausting. Fever remains high, 104 deg. and even 106 deg. Paroxysm follows paroxysm rapidly, and delirium intervenes early. There is often incontinence of urine. Convulsions, uremic in character, bring the case to a close at this point, or death results from adynamia.

The prognosis in hemorrhagic malarial fever is always grave. The mortality is in the neighborhood of 40 per cent. in that locality where I encountered it, and the percentage is increased as a matter of course during epidemics.

It would seem that the treatment of a disease so typically malarious should be plainly indicated and embodied in the one word—quinine. But concerning the treatment of hemorrhagic fever there has been much controversy, and about the administration of quinine particularly is there great diversity of opinion. Not indeed among the authors of our text-books on practice (who tell us cinchonism first, last and all the time) but among those practitioners who live in the midst of it and who deal with it year by year. On the one side we have those who discard quinine except in small and tonic doses, or eschew it entirely, and rely upon supportive and recuperative methods such as are used in typhus and yellow fevers and like conditions characterized by marked blood degeneration. On the other hand, are those physicians who see in this disease only the intense type of malaria, and who rely in this as in other malarial conditions mainly upon malaria's undoubted specific—quinine. He who pins his faith absolutely to the one or the other extreme, however, will find his success with the disease suffers as a consequence of his bias. To me quinine appears the logical indication in a condition that cannot be disassociated from malaria. And in my hands it has been so satisfactory in results that I rely upon it in the main, though by no means absolutely. In the treatment of hemorrhagic fever it must be borne in mind that the hemorrhage *per se* demands no treatment. The two very evident indications are to control the paroxysms and to combat the prostration. The paroxysms can be and are controlled by quinine, and the following method of administration will be found to possess advantages. A rapid

cinchonism produced at the onset by hypodermic use of quinine—15 to 30 grains of the bisulphate repeated in six hours, if necessary, or even oftener. Following this initial hypodermic of quinine give 10 grains of an acid solution of the sulphate every two hours until 60 to 120 grains are given by the stomach—according as the severity of the case demands. The acid solution will be found to be retained when nothing else is tolerated an instant on the stomach, and though it is often vomited one may depend on a large portion of the amount given being absorbed. However, should vomiting be so severe as to lead to the belief that none is being absorbed, recourse can always be had to the hypodermic method, and cinchonism be produced and sustained in this way. Indeed, for the first day or two when the vomiting is so raging, it is well to depend upon the hypodermic injections almost entirely. Cinchonism will be found easily sustained from this time and throughout the acute stage by the administration of the acid solution.

An initial dose of calomel is given at once, usually 8 to 10 grains, along with half grain of podophyllin. This produces a free purgation and institutes a stimulating action upon the liver which repeated small doses throughout the case will be found to sustain with beneficial results. After this initial purge the marked tendency to constipation must be combatted by some of the salines. And for this purpose teaspoonful doses of half and half sulph. mag. and phos. soda given three times daily or oftener cannot be improved upon. Vomiting will make the administration of this during the first two days imposible, generally, and resort must be had to enemas during this time.

Along with the bowels the kidneys should be kept freely active, and to affect this a stimulant diuretic is to be given. Acetate of potash and the F. E. buchu will form an efficient mixture. In addition to this a quantity of cool water must be given the patient, and the intense thirst characteristic of this disease will make this a duty that is hardly likely to be allowed to go unattended. But as in the case of the bowels so in the case of the kidneys it is difficult and next to impossible to reach them per orem during the persistent vomiting of the onset. Under these circumstances large enemas of cool water, which the patient retains very easily, will be found to flush the kidneys and decidedly increase their secretion. And let me lay stress on the fact that scanty kidney secretion here is always of grave moment. Every effort should be exerted to keep these organs active and to flush them constantly by one means or another. Persistent scant secretion is associated always with the worst and fatal forms, and free secretion is always indicative of good.

The fever requires no other remedy than the quinine which is directed towards the paroxysms. It rarely passes 104° and in the interim between paroxysms hardly ever attaining a point that calls for active interference. Should it do so, however, hydrotheraphy, in the form of cold sponging here, readily controlls it. Nausea and vomiting it is simply waste of time and misdirected energy to attempt to combat by palliative methods, or indeed at all. It will yield only as the system is brought under the influence of quinine; and bismuth, creosote, ice, etc., etc., are all equally inefficacious. It responds to morphia, but only to commence again as its effects wear off, with renewed vigor. To me it seems a provision and expedient of nature and its ultimate result of decided benefit, however distressing it is to all concerned during its continuance. Consequently, unless it is so prostrating as to become immediately dangerous it were best to allow it to wear itself off by a natural process.

Restlessness and insomnia are relieved by trional or some like preparation and only by an opiate in an extremity. Thirst is to be gratified by ice, ice water, ice lemonade *ad libitum*

The profound prostration and marked vital depression so manifest from the start demands our careful attention and untiring efforts to combat. The blood degeneration incident to so profound an infection with the malarial poison cannot but be of the gravest kind. To battle successfully against this and sustain the patient's strength throughout the acute stage is to have won in the struggle. Strychnine is given from the commencement. During the vomiting by hypodermic means and after this by the mouth; and the acid solution of quinine makes a good vehicle, the amount being governed, of course, by the indications. The question of nourishment is a disturbing and trying one. To hope to feed by the mouth for 48 hours is almost vain, though I always go through that form by giving hourly small quantities of beef peptonoids, milk or soup, adding a teaspoonful of whiskey to each feeding, and depend on a small amount being absorbed. At this time as well as through the entire acute stage rectal alimentation is to be relied upon. And in these patients it is especially happy in its results, the bowel retaining and absorbing nourishment satisfactorily. Since so large a dependence is placed on this

function of the bowel it is my custom not ever to use it for medicines in this disease, and thus preserve it from irritation. So soon as there is abeyance of vomiting feeding by the mouth should be commenced, and to the nourishment iron, in the form of the tincture, should be added in small and increasing doses. As convalence progresses arsenic should be added also, the strychnine being continued all this time. Quinine is continued for one month or longer after the patient is out of bed, being dropped gradually to ten grains daily and this in turn decreased until all fear of a relapse or return will admit of its entire discontinuance. With good careful feeding and those drugs named above, iron, arsenic, strychnine, and quinine, convalescence progresses satisfactorily, but never rapidly, towards recovery.

Before closing I want to call your attention to one of the sequelæ of this disease—amaurosis. This, there can be no doubt, is due to the large doses of the quinine, acting by causing retinal anæmia through constriction of the capillaries within its structure. This amaurosis is not always a sequel, but is very often so, and is most pronounced when heroic doses of quinine have been necessary. It is a total bindness at times and wears off as the disease abates and especially as the quinine is decreased. It ultimately passes off after continuing in some cases as long as three or four months. Cases where it is persistent I have not yet seen. And no such fear would influence my administration of the drug.

That quinine will cause hemorrhage if given in hemorrhagic fever is not infrequently asserted. I cannot believe this in the face of the disappearance of hemorrhage so consistently under my use of it in doses large and small.

Serum in Tuberculosis.*

By Dr. Paul Paquin of Asheville. N. C.

I need not say that the question of tuberculosis is of the greatest importance to all physicians, and particularly so in Asheville, where we have to deal daily with tuberculosis in all its branches, though mostly in the lungs. The question of specific medication for tuberculosis is one of paramount importance, because we have so many claims made every day with respect to this or that remedy that is supposed to cure tuberculosis, without respect to conditions that may exist otherwise than that of pure consumption, so-called.

*Discussion before the N. C. Medical Society at Asheville, 1899.

We rarely find a case of unmixed tuberculosis. Usually the patient, when he reaches the office at any rate, is suffering from infection in which causation is so complex that no one remedy should claim to be exclusively competent to arrest the progress of the disease. When it is possible to find a patient at the very beginning, when there exists nothing but the development of the tubercular bacilli, then it is possible to arrest the process by specific medication, but unfortunately we have to deal, from a bacteriological standpoint, with different kinds of micro-organisms. It matters not under what similar appearances it presents itself, it is irrational to apply only one and the same remedy beeause the disease is called consumption.

Sero-therapy is based on the fact that nature herself cures diseases, and when it was applied to the treatment of tetanus, and later on to diphtheria, it was on the basis that nature cures those diseases sometimes without the aid of the physician. This having been discovered it was then reasoned on what ground it was done. Serum therapy was an accidental discovery by a Japanese student in Germany. Following that Behring, in Germany and Roux, in France, found out that they could cure diphtheria on the very same basis that nature herself cures it by the generation of anti-toxins in the conflict between the cells of the system and microbes. In other words, it was discovered that the system was capable of generating its own salvation. Realize that this is done by the reaction of the cells of the body, which have individual life and the property of fighting for their own existence. Reason now how you can apply the principle to tuberculosis. In diphtheria, at least in the beginning, there is a pure infection. You may have a mixed infection later on. This is a quick disease that destroys the tissues rapidly and produces poisons profusely without pronounced disorganization of tissue; this disease is preventable or cured by use of antitoxin. Can you apply the same thing to tuberculosis? In some cases, yes; in others only theoretically. The slowness of the disease is against us. I could cite numerous cases in a very unfavorable climate where tuberculosis was certainly benefitted and cured by serum without the effects of air or other conditions of any kind. On the other hand I can cite cases where I have tried both serum therapy and toxins with failure. The question, therefore, reduces itself to one of proper diagnosis, discrimination and treatment. The streptococci and other poisonous germs play

a great factor in many cases; indeed we sometimes get a temperature of 104 by the admixture of streptococci alone. Here anti-tubercle serum alone may not suffice as anti-microbic remedy. Anti-streptococcus serum should be added.

With respect to the treatment of the disease by the so-called direct tonic method, or modifications of Koch, I beg to say that it stands on very diffierent grounds, so far as the application is concerned. The results are supposed to be the same, but if we apply toxin in the treatment for the purpose of arresting the development of the germ that produces that very toxin, then it can be only on the basis that underlies the use of a vaccine. It is not at all like using serum. In therapeutic application it is the antipode of serum therapy. A toxin of any name is a direct poisoning agent which aims to force the sick individual to produce an antitoxin, or anti-poison, for its defense. An antitoxin, as used in medicine, is an anti-poison produced *not* at the expense of the sick human being but a healthy animal, thus saving man an unnecessary loss of energey to say the least. Take diphtheria. When a child gets well by itself it is because the antitoxin is generated in its blood. If you use that same toxin in a horse the antitoxin is generated in the horse. In other words, in using antitoxins we utilize principles generated at the expense of the forces of the horse. In tuberculosis the same thing occurs. If you use a toxin in treatment you try to generate by it in man's system an antitoxin for his cure. This limits the toxin treatment to the very earliest cases, those undeveloped. The antitoxins may be used in any case.

We cannot find, in the great majority of cases anything less than mixed infection, as I said before, and so every case should be treated on its merits, and not by one remedy because that remedy is claimed to cure consumption. I am one of those who worked early in the serum therapy. I believe I applied serum therapy to tuberculosis before any others in this country at least, and I am quite sure the serum I introduced in tuberculosis was the first serum from an immunized animal. I have now records of cases from this treatment dating back for five years and apparently well today, but, nevertheless, I wish to protest against its being called a specific for tuberculosis irrespective of any and all conditions. A good anti-tubercle serum is, to my mind, the best of known specific forms of medication in most forms of tuberculosis, but no useful remedy should be neglected as accessory or adjunct.

There are numerous sera on the market, all imitations of the original one produced by Maragliano and myself. Scientifically there is no such thing as "Anti-tubercle serum T. R." This is a catch penny name used by sciolists and pretenders gambling on human sufferings and was borrowed from Koch's name of T. R. for tuberculine residium with which he sought to cure tuberculosis but failed. He has since discarded the remedy as a curative agent. But, to sell their products, traders on human misfortunes use this name and hire so-called scientists to use the profession more plausibly and more safely to their benefit.

General Management of Diseases of the Skin.†

By James M. Blaine, M. D., Professor of Dermatology and Venereal Diseases, Gross Medical College, Dermatologist to St. Anthony's Hospital, Denver, Col.

The ease with which diseases of the skin may be examined and studied should enable every physician to become expert in their diagnosis; no crepitant rales or regurgitant murmurs, no fancied pains or misleading statements regarding subjective symptoms to interfere with a deliberate study of the pathological process which spreads itself as a map before our gaze. I presume the habit becomes chronic with physicians to close their eyes while they diagnose with their ears or the distal extremities of their index fingers. They get into the habit of listening to the history of the case as given by the patient, which, in most cases in dermatological practice, is absolutely worthless, and in many is positively misleading, hence it is we so often hear it said that the treatment of diseases of the skin is unsatisfactory and the prognosis doubtful.

If we would only remember that the dermal covering is a part of the body and therefore subject to the same pathological conditions and morbid changes and exercise care in the selection of our remedies so as to have the therapeutic action fit the pathological condition, then the treatment would be more satisfactory and the prognosis more hopeful. I do not subscribe to the theory as taught by many European authorities and sanctioned by some eminent dermatologists in our own country, that all diseases of the skin are due to local causes and therefore need only to be treated locally,

†Read before the Pueblo County Medical Society, Pueblo, Col., April 13th.

neither do I hold to the opposite hypothesis that they are all due to constitutional or internal causes; nevertheless as the disease itself is purely local and therefore exposed to extraneous conditions and circumstances which modify or intensify its course it can be easily understood that the local treatment if conducted according to pathological indications is of greater importance than the internal, for not only may we relieve all cutaneous manifestations by local treatment, but in some cases this procedure is sufficient to effect a cure. In applying remedies to the skin we have our choice of lotions, powders, plasters and ointments.

Lotions are serviceable where we have a large surface to deal with and where clean liness is desirable. Powders are preferable where there is a moist surface, while plasters are best where the surface is small and where we wish to have a continuous application to the part and also to exclude the air. The most common form and also the most efficient in a majority of cases, however, is by means of an ointment, selecting for a base a preparation that will protect the surface from extraneous influences, keep the skin soft and pliable, hold the remedy in constant contact with the diseased surface and at the same time be capable of at least some absorption. The petroleum products which are so largely used are not capable of any absorption and according to Leibreich, who experimented with poisons, they prevent the entrance of the medicament into the skin.

Animal fats possess an affinity for the skin and are capable of absorption, but are liable to decompose and become rancid and are therefore an irritant to the skin. The one exception to this is found in lanolin, which is neutral and will not decompose; it is capable of absorption and is impermeable to micro-organisms. The objection to its use is its adhesiveness which may be overcome by mixing with almond oil or adeps and rose water.

The superstition so common among the laity that it is dangerous to treat some diseases, particularly eczema, locally, for fear of metastasis or "driving them in" to some other organ, has at last been abandoned by the profession. So far as I know there is only one authority who still clings to this theory. Gancher says that an eczema is a provision of nature for the elimination of toxic principles and "that by shutting up the outlet these principles accumulate in some internal organ with serious consequences. The objects to be attained by local medication are: 1st, to relieve any distressing subjective symptoms, and 2nd, to correct the pathological condition present. The subjective symptoms most frequently complained of are: Itching, burning, smarting, tingling and pain. Having relieved these by appropriate local medication and quieted the irritated peripheral nerve filaments we have accomplished the first step in the process of cure and in many cases where local nerve irritation is the cause of the eruption we have really brought about a cure by this procedure. If, however, the disease is more severe and pathological changes have taken place, our applications must contain other ingredients for the modification of these conditions.

Prior to 1845 the classifieation of diseases of the skin was in a state of chaos, each author using his own unscientific method. At that time Hebra first published his classification which was based on anatomical and pathological conditions, so that with slight modifications which are used to-day the study and treatment of diseases of the skin is very much simplified.

Disorders of secretion and excretion must be treated by astringents or stimulants according as to whether they are excessive or scanty. Hemorrhages must be treated by relieving blood pressure and restoring normal circulation. If exudations have taken place the absorbents must be stimulated and if the exudation takes place on the surface soothing astringents, germicides and antipruritics must be used. In this class, which constitutes by far the largest in the list, we have many diseases which present an open raw surface, and while some affirm and others deny, that they are due to micro-organisms, still the open raw surface furnishes a nidus for extraneous organisms and in order to successfully treat them the prescription must contain a germicide that will kill those already there and prevent the advent of others. If the exudation becomes chronic we will find a thickened condition of the skin and in this event a keratolytic remedy must be added to our prescription so as to thin the skin and allow the other agents to reach the diseased tissue. In the pustular exudations we must remember that the streptococci and staphylococci have entered from without and must be treated locally. Internal treatment in these cases is only aimed at correcting the soil rather than destroying the pus organisms.

Hypertrophies are to be treated generally by remedies which have the power to thin the epidermis and restore it to its normal condition. Tumors must be excised or cauterized. Neuroses are to be treated by appropriate internal remedies. Diseases due to parasites are all curable by means of local applications and need no internal treatment unless there may have been some

derangement of the system as a result of inflammation produced by the parasites.

These are the pathological conditions found in diseases of the skin and for which I have endeavored to give you a general outline as to the indications for treatment. It is of more importance to be able to tell the pathological condition present than to name the disease, for from these conditions we obtain our therapeutic suggestions. There are other means for treating diseases of the skin externally which I shall only mention briefly. Massage and electricity are very useful where the skin is sluggish or thickened. It gives tone to the glands of the skin and invites a healthy circulation. I may be permitted to remark incidentally, however that massage and electricity will not remove wrinkles as advertised so persistently by the quacks and "beauty specialists" unless the wrinkles are due to a relaxed skin. In a healthy person wrinkles are the expression of character and cannot be removed unless the character of the individual is changed. Galvanism may be used to remove superfluous hairs and excressences and acts by destroying the circulation in the part, is perfectly harmless and should leave no scar.

Bathing is a useful adjunct in the treatment of many diseases of the skin. When the folicles are clogged with sebum and effete material it is impossible for the skin to give off carbonic acid gas and take in oxygen. (It is estimated that the skin takes 1-50 as much oxygen as the lungs.) Soap and water are forbidden in all forms of acute eczema, except eczema seborrhoicum. Soap should be freely used in acne and comedo and if the skin is not too delicate may be made into a lather and allowed to remain on the face all night. If strong in alkali it exerts a chemical action on the sebaceous plug. In regard to the internal treatment of diseases of the skin one must make use of his knowledge of general medicine in order to successfully prescribe. In searching for an internal cause, where one exists, we must interrogate every internal organ. As there are few specifics in medicine so there are few or none in dermatology.

Judging from the universal use made of arsenic one would naturally suppose it to be a specific, but such is not the case. Arsenic is one of our best remedies in diseases of the skin, but it does more harm than good. This may sound like a paradox, but when it is remembered that it is contraindicated in all acute inflammatory conditions and that the majority of dermatoses are acute, we can easily see how its indiscriminate use would produce harm more frequently than good. It is not contraindicated in the acute stage of psoriasis, but is absolutely useless in arresting the progress of the disease and only affects the older lesions which have become chronic. The internal treatment, therefore, must be conducted on general principles. If the disease is characterized by active inflammation remedies which reduce blood pressure and promote resolution are indicated. The kidneys and liver should be excited to abnormal activity so as to relieve the skin of its function as an excretory organ. Any departure from normal health should be looked after and the system put into as good condition as possible. Having done this our topical remedies will more easily control the local manifestations.

These general outlines which I have attempted to give for the management of diseases of the skin are, of course, necessarily imperfect, but if the points emphasized are born in mind, viz: The pathological manifestations on the skin and the therapeutic action of drugs, the treatment will be very much simplified. There is no branch of medical practice in which a thorough knowledge of the functions of the body and the application of remedies to disease is so much needed as in dermatology. But with this knowledge and the exercise of good judgement and common sense there is no reason why the prognosis in these cases should be uncertain.

Successful Vaccination Without Infection

By Thomas B. Horton, M. D., Vaccine Physician for the Fifth District of Anne Arundel Co., Md., Baltimore, Maryland.

The protective influence of vaccination is, undoubtedly, one of the greatest benefits conferred by science upon the human race. The medical history of the past century has recorded no other system of medication, either prophylactic or therapeutic, that has so long survived the vicissitudes of time and scientific discovery. Vaccinnation stands, therefore, as the magnificent monument of an humble physician, the immortal Jenner, whose name will never be forgotten so long as the art of healing performs its beneficent mission.

But valuable and useful as vaccination has been to mankind, the practice has always been open to serious objections, the chief of which was the risk of infection. Vast popular movements against the compulsory enforcement of vaccination have been the result, not so much of ignorance as may be supposed, but rather of the deter-

mination of a free people to resist the infliction of loathsome disease upon themselves and their offspring. If the whole truth could be known, thousands of cases could be cited in support of this statement. Where is the practitioner who has not seen serious constitutional and local results follow the simple little operation of vaccination; the extensive erythema; the swollen and tender arm betokening cellulitis, due to infection; the sloughing and foul ulcer, discharging fetid pus; and, finally, the disfiguring cicatrix?

We live and learn. Our preceptors thought their methods were excellent. They attributed the serious effects of many vaccinations to the virus itself. The more local soreness that followed the operation and the greater the systemic disturbance, the better the vaccine was supposed "to take." But we now know better. We have learned that disastrous results, such as those we have mentioned, are the result of infection with such germs as the streptococcus, whose presence always leads to mischief and often to serious consequences. The fault has been with the means and methods employed and not with the vaccine virus itself.

Recently my attention was drawn to the Aseptic Vaccine of Messrs. Parke, Davis & Company, of Detroit, Mich. I believe it comes as near to the ideal standard of perfection as it is possible to approach. Aseptic Vaccine consists of the virus from selected healthy young cattle suspended in glycerin and hermetically sealed in capillary glass tubes. The greatest amount of care to prevent contamination and the most minute attention to details is the secret of obtaining an Aseptic Vaccine. It has been discovered too that glycerin has a germicidal action on any bacteria that may happen to be present in the vaccine virus, so that after standing for a time glycerinated vaccine becomes Aseptic Vaccine. I have used the Aseptic Vaccine of Parke, Davis & Co. in over 300 cases, during the past few months. As a striking example of its freedom from contaminating germs I would call attention to the somewhat noteworthy fact that in no single instance did a sore arm result. Of this entire number probably less than three per cent. failed to be successful in yielding typical vaccinations. I should explain that most of these vaccinations were conducted under rather unfavorable circumstances. For instance, a large number of those operated upon were employes in packing houses, where, from a sanitary standpoint, the surroundings were by no means what they should have been. Furthermore, the men, who were mostly foreigners, were not particular on the score of personal cleanliness. Yet, notwithstanding these trying conditions, the vaccinations were very successful and I had no cases of severely sore arms.

For the purpose of comparing the new method with the old, I made a number of vaccinations with quills. In the usual number of instances very sore arms resulted, caused unquestionably by the pressure of infectious material. These cases usually give the physician considerable annoyance since they expect to be treated subsequently to the operation, free of charge.

In 1894 the Columbus Medical Laboratory of Chicago, made a careful examination of eleven different varieties of vaccine points, made by as many manufacturers, and only one was found to be free from bacteria and blood cells.

The advantages of Aseptic Vaccine are so obvious to any one who will give the subject a moment's thought, that it seems as if no argument in its favor is necessary. I merely relate my experience which is based upon an honest desire to observe for myself the effects of the latest biologic addition to our armamentarium.

I trust this experience may prove helpful to any brother practitioner who is stumbling among the pitfalls of unsuccessful vaccinations and septic infections.

Common Nasal Causes of Eye Symptoms.

By W. L. Grant, M. D., Fargo, N. D.

The close connection existing between the nose and the eye is too often forgotten. Not only are the separating walls composed of thin plates readily subject to the effects of pressure, but there is a common nerve supply through the tri-facial giving rise to reflex symptoms. But this is not all. There is a closer and direct communication between the cavities through the nasal duct which is lined by a portion of the same mucous membrane continued from the nasal cavity through it to the orbital structures.

The most marked result of pressure from intra- or post-nasal growths is exophthalmus. One such very marked case came under my observation during the past year in the person of a Norwegian boy, aged 16, with sarcoma growing from the upper wall of the naso-pharynx, filling that cavity and the right side of the nose, and completely blocking nasal respiration. The right eye bulged remarkably, but vision was not disturbed. The bulging disappeared entirely after the removal of the growth, but, of

course, there is but little to be hoped for in such cases.

Under the second class of symptoms, reflexes of the tri-facial, the most prominent is pain in the eyes, either neuralgic or asthenopic. We find neuralgic pain most frequently in connection with exostosis large enough to impinge upon the opposite turbinate, but it may be due to deflection of the septum, or to simple hypertrophy. That form of pain which is brought on by prolonged use of the eyes at near work, asthethenopic, is more apt to be connected with a good deal of hypertrophy, and we not unfrequently find septal spurs associated with the hypertrophy.

A. J. S., merchant, aged 39, seen March 24th, 1898, complained of periodical pain in left eye and left side of head, with impaired nasal respiration. (The right eye had been removed several years previous for an injury). There was a marked septal spur upon the left side, burying itself in the turbinated body, also some deflection. The spur was removed and relief from pain followed. He moved away after seven months but during that time there had been no recurrence of the pain.

Another reflex symptom met with occasionally is twitching of the lids,

W. L. V——, a minister, came to me with a large septal spur blocking one nostril. It was removed. A month later he came to me and reported that a twitching of the eye lids on that side which had previously annoyed him very much had almost entirely disappeared. The improvement has been permanent, although there still remains a tendency at times to twitch somewhat.

Extension of inflammation from the nose to the eye through the nasal duct and lachrymal sac is a, by no means, uncommon occurrence. Extension as far as the sac is quite frequently seen, and when such extension has taken place the condition is a rebellious one unless the nose is properly looked after.

Infective corneal ulceration may accompany such dachryo-cystitis, or it may occur without any evident involvement of the drainage system.

Alice S., aged 13, came to me October 24, 1896, with ulceration of both corneas—pain almost unbearable, blepharospasm pronounced, and much nasal discharge. Both corneas were scarred from former attacks. She was put on atropia, cocaine, boric acid and hot applications, but neglected nasal treatment. Improvement did not begin until the purulent condition of the nose was attended to. Then improvement of the eyes began and kept pace with that of the causative condition in the nose which in this case was a purulent rhinitis ending in atrophy. The trouble with the nose antedated the eye symptoms. The corneal attacks had been repeated from time to time as the condition of the nose varied, but since the purulent trouble has been overcome, and the nasal cavities kept properly cleansed there has been no further annoyance except from the scarring, and this is permanent.

The point I wish to make is that the nose be not overlooked in seeking for the cause of, and remedying such eye symptoms as I have spoken of.

The Treatment of Chorea.

By Milton P. Creel, M. D., Surgeon I. C. Railway. Surgeon L. & N. R. R., member National Association Railway Surgeons, Member American Medical Association, Member Mississippi Valley Medical Association, Member Tri-State Medical Association, Member Ky. State Medical Society, Secretary Muhlenberg Co. Board of Health, Refcree for Muhlenberg Co., for Ky. State Board of Health, Member U. S. Board Pension Examiners, Member So. Ky. Medical Society, etc., etc., etc., Central City, Ky.

The pathology of chorea has been long an unread chapter to the medical profession, yet the gravity of the affection is such that anything which promises to render the disease more tractable to treatment, will at once be received by the practitioner with enthusiasm. For a long time one remedy has dominated the therapeutics of chorea. That remedy has been arsenic. I have been convinced for a long time that arsenic, while it is capable of rendering us much good, it is far from being a remedy which exerts a curative action. We will search in vain for clinical evidence among the best observers for positive statements that arsenic abreviates the duration of the disease.

The truth is now generally understood among the best observers that arsenic only is a tonic, and its action for the improvement of the patient is along this line, and that it does not act as a specific in any sense of the word.

In the treatment of chorea nothing is of more importance than to maintain the nutrition of the patient. When this is neglected all the factors in the case rapidly grow worse. This can be easily understood when we think how much muscular activity is going on, and how great must be the consequent tissue waste.

It has become a steadfast rule with me to have my patients with chorea, fed syste-

matically and adequately, as I do in typhoid fever. Milk, predigested foods and appropriate and available articles of diet are to be given regularly. The physician should not fail to direct the nurse as to how much food the patient should take in twenty-four hours, and see that the importance of attention to the nutrition of the patient is fully comprehended by the nurse or parents. Another matter of great importance is attention to the treatment of any coexisting disease condition present in the case in hand. Very frequently we will find anæmia associated in the case. Whenever this is the case we should at once exhibit an appropriate preparation of iron, and continue it until the anæmia is eliminated.

From the inception of the attack I give the patient Cordial Pascarnata. This remedy, by its tonic action on the nervous system, tends to quiet the muscular activity, and produce quiet of the nervous system. The patients sleep, and the rest gained in this way brings strength to resist the disease. I have been able by the means of this remedy to bring the disease to a shorter duration.

Of course, as already indicated, I give other remedies which are deemed fitting to overcome any coexisting disease condition. I also, at the very beginning, commence with systematic feeding.

I have by this means rarely found chorea to run a course longer than two weeks. In those cases which pursued a longer course there has been associated anæmia, rheumatism, or some other condition which would naturally aggravate the chorea.

Below are given in outline the clinical histories of several cases. These comprise, however, only a few of thirty cases treated on this principle.

Frankie S., age 9. This little girl was frightened by some dogs and developed a well marked attack of chorea. She was fed at regular hours, and received Cordial Pascarnata in doses of twenty drops every three hours.

She received no arsenic. Nothing was given to this child beyond Cordial Pascarnata and cod liver oil, which last mentioned was given three times a day to improve her general health, she being poorly nourished.

This patient slept well, and had no accident and her improvement was gradual, and she was discharged cured two weeks from the beginning of treatment.

A. K., age 7. This little girl had been ill of chorea for a week before I saw her. I was sent for in consultation. She was taking arsenic and the bromides, but these had produced no good results. I advised the giving of Cordial Pascarnata in doses of twenty drops every three hours. On this treatment she got along better from the start and made a complete recovery in two weeks.

From the time she began to take the Cordial Pascarnata she could sleep better, her muscular activity lessened, and her course toward recovery was without interruption.

Corinne S., age 11. This child was also seen in consultation. She was markedly anæmic. I at once ordered a discontinuance of arsenic and codeine, and put her on Cordial Pascarnata in doses of one-half teaspoonful every three hours.

She began also with iron in appropriate form. Three weeks found this patient well. I am sure that by old time measures this patient would not have recovered under six or eight weeks, if even then a happy termination was reached.

Some Points in the Surgery of the Thumb.*

By Robert J. Reed, M. D., Wheeling, W. Va., Surgeon to City Hospital; President B. and O. Association of Railway Surgeons.

In this day of marvellous surgical achievements, it is a question, if one does not endanger his professional dignity and standing who does not rise higher than the thumb, in a discussion before scientific brethren who are wont to be engrossed with the surgery of the cavities and subjects of like gravity. May not the writer hope at least to be commended for obedience to the prophetic injunction of "despising not the day of small things?"

The injuries and afflictions of this diminutive member, which gives to the hand its distinguishing feature from the corresponding part in the lower animal life, are not without a serious side. They may occasion no little vexation of spirit in the attending surgeon, and not infrequently do they deserve to be numbered among "the foolish things of this world which confound the wise."

The hand is a mechanism marvellous in its grace, ingenuity and utility, and the thumb is its most essential part; of greater value than any finger, equal in importance to all combined. It apposes each and is the help-mate of each and all.

To the manual laborer—and in this classification practically every one is included—next to a clear head, of greatest importance is a dextrous hand. An essential to

*Read before the West Virginia State Medical Society, May 18, 1899.

such a hand, whether it wield the pick, the pen, the needle or the scalpel, is a perfect thumb. If its integrity be to any extent affected, the ease and facility with which the hand performs its functions are diminished, its possessor is placed at a disadvantage in the prosecution of his duties and handicapped in the race for advancement and promotion.

Since there is one less phalanx in the thumb than in the fingers, the first is of much greater importance to the thumb than to the fingers. If it be lost or if its articulation with the second phalanx be seriously impaired, or its tendons be rendered ineffective, the usefulness of the hand is decidedly lessened, particularly for the more delicate manipulations, where an exactness of apposition between the tips of the thumb and finger or fingers, is necessary.

The thumb's two chief movements, extension and flexion, are produced by the two muscles, the extensor secundi internodii pollicis and the flexor longus pollicis. Their long, slender tendons lie in sheaths on the dorsal and palmar surfaces in positions greatly exposed to traumatism. The sheath of the flexor tendon, it will be recalled, is peculiar, in that it is a prolongation and a part of the palmar bursa, whereas the sheaths of the finger flexors, with the exception of a portion of the flexor to the little finger, are separate and closed apartments. In this anatomical arrangement lies a point of great practical import.

Phlegmonous inflammation of the thumb, especially if located upon the palmar surface, is always of serious character, because of the danger of this flexor sheath becoming involved. In which event an extension of the inflammatory action from this arm of the palmar bursa into the bursa proper is a strong probability; and if such complication arises, there is presented the most obstinate, painful and destructive process which is the lot of the hand to suffer.

The etiology of periosteal and subcutaneous inflammations about the thumb can not always be discovered. They may result from a constitutional state, a toxic principle in the blood which manifests itself locally; but in a vast majority of cases inflammatory conditions here are due to the entrance of septic material through a broken point in the skin. It may be the result of a bite, a sting, a simple puncture by an unclean needle, pin, splinter, bone, fish fin. It may result from an abrasion only or cut or hang-nail, through which septic matter has accidently entered. Often the wound is so slight as to escape notice, or it may have healed and been forgotten before the inflammation is well developed, so that the causative relation of wound to phlegmon may be easily overlooked.

An early recognition of the character of the affection and an appreciation of its significance and seriousness will often avert the maiming of a thumb and may be of a hand. When the palmar surface is first involved, failure to make prompt diagnosis is possible, because of the absence, in the early stage, of two of the cardinal symptoms of inflammation, redness and swelling. The thickness and firmness of the skin retard their appearance, and these evidences which may manifest themselves first upon the lateral or dorsal surfaces can mislead one as to the location of the central point of the inflammation. Pain, heat and throbbing are symptoms sufficiently indicative, without waiting for the appearance of others, to arouse suspicion of a suppurative process. Its exact center can be determined by going over the sensitive area with the sharpened end of a pencil, making gentle pressure, until a point is discovered, which is exceptionally and exquisitely painful, directly underneath which is the pus.

With respect to the treatment, prophylaxis is of supreme importance. All wounds of the thumb should be treated with serious regard to the requirements of the rules of asepsis. Slight cuts and excoriations can be sealed and made sterile by cauterizing, preferably with acetic acid. Punctured wounds should be mopped with carbolic acid or a strong bichloride solution and a moist aseptic dressing applied.

It is very frequently true that the physician first looks upon these minor injuries through cob-webs, soot, court plaster, agents to control bleeding, and dirt of every variety. Even in this condition, thorough cleansing and the use of active antiseptics, with a moist dressing, may prevent infection On the other hand, if the wound be sealed or if there be no history of an injury, but a deep-seated subcutaneous or periosteal inflammation is suspected, with the symptoms present of heat, pain, throbbing, with a central tender point, heroic measures should at once be adopted; under the chloride of ethel spray, producing local anæsthesia, puncture should be made with a tenotomy knife, down to the pus center and widened sufficiently to give free drainage. If the inflammation is about the second phalanx and upon the dorsal or palmar surface, care should be taken not to carry the knife so deep as to wound the tendon sheath and thereby extend the infection into it. In case the inflammation is deeply seated, involving the periosteum, the incision should be through it and freely made, but

by a lateral route; better risk artery or nerve than to endanger the tendons.

Poultices are to be condemned; they blanch the surface and prevent the appearance of redness and swelling, masking these and other evidences of the mischief that is in progress. Moreover it is not clear that any good is accomplished by them, unless it be in quieting the patient's mind in the belief that "something is being done." The knife must come in time and delay may simply mean destructive necrotic changes in the bone or tendon, or an extension of the inflammation to neighboring parts.

The evil effects of the let-alone, non-aseptic treatment of a simple wound of the thumb were seen in a case which came under my notice and is here briefly reported. W. S., a lawyer, in opening a bottle with a broken mouth sustained what seemed to be an insignificant wound of the palmar surface of the thumb, opposite the second phalanx. It did not heal kindly, but with the hand kept at rest and by the aid of domestic lotions, it in time recovered; and then it began to dawn upon the patient that he was unable to voluntarily flex the first phalanx, although by the assistance of the other hand its flexion was perfect. He came to me with his own diagnosis, of divided tendon. There was ground for suspicion that his opinion was correct. An exploratory incision was decided upon, with the result that the tendon was found intact, but with its sheath firmly adherent. An attempt was made to free it, which was successful only in part. After it passed between the heads of the flexor brevis muscle it was deemed inadvisable to follow it further, the adhesions evidently extending out into the palmar bursa. But little improvement resulted from the operation. It was his right thumb, so that writing, an important part of his professional work, as well as many other movements, are made difficult for him. Very recently another case, with an experience and a result almost identical with this, has come under my care.

In every injury of the thumb involving the region of the second phalanx, the danger of adhesive tendon sheaths should be kept in mind. In addition to an aseptic treatment, it would seem a rational position to advise avoidance of rest and instead active motion in the part, frequent voluntary movement and later, as soon as the tenderness subsides, daily massage.

In complete dislocations of the thumb, difficulties in the reduction may be presented, very surprising and perplexing. A case in which the writer was associated, verified this statement. A report of it will serve to introduce the subject of phalangeal luxations.

A young man was struck on the end of the thumb by a ball and sustained a complete backward displacement of the first phalanx. The base of the first rested behind the head of the second phalanx and was perfectly locked. As powerful extension as it was possible to make by grasping and producing traction upon the short phalanx only served to tighten the locked condition.

Extension combined with pressure forward against the presenting base of the phalanx availed nothing. Strips of adhesive plaster were bandaged to the dislocated phalanx, in the hope of securing a better hold by which more effective extension could be made, and this failed. Before resorting to anæsthesia or tenotomy, a recourse suggested by good authority, a final effort was put forth by adopting the easiest procedure possible—simply unlocking the bones—and this was successful.

By flexing the hand upon the forearm and the thumb upon the hand, the flexor longus pollicis was completely relaxed, which made the second step possible. This consisted in carrying the dislocated phalanx far backward toward the dorsum of the thumb, to about a right angle—extreme extension—when its articular surface came in touch with the margin of the articular surface of the second phalanx, in which position the bones were unlocked. The third step consisted in making pressure from behind against the base of the phalanx, which lifted it into place. This simple procedure was reduction by manipulation.

The dislocation of the second phalanx of the thumb from the matacarpal bone has always been considered a difficult one to reduce. A number of explanations are given which will not here be described. The method just referred to, however, will overcome the chief difficulties, in my judgment, and give invariable success.

All surgical authorities deem the subject of complete dislocation of the phalanges of thumb and fingers of sufficient importance as to devote considerable space to their treatment, especially to their reduction. The method of forcible extension and counter extension is the one chiefly recommended. All sorts of devices are described and endorsed, such as the pullies, the clove-hitch, sliding knots, forceps and clamping arrangements for the purpose of furnishing better purchase for powerful extension. These appliances are entirely unnecessary. By a simple method of manipulation, any phalangeal luxation can be reduced. The following rules are given;

In backward displacements—

First. Extreme flexion of the hand, also of the proximal phalanx if the distal phalanx be displaced.

Second. Extreme extension of the dislocated phalanx.

Third. Pressure forward against the base of the displaced bone.

In forward displacements, the manipulations are simply reversed.

First Extreme extension of the hand, also of the proximal phalanx, if the distal phalanx be displaced.

Second. Extreme flexion of the dislocated phalanx.

Third. Pressure backward against the base of the bone.

In respect to the question of amputation, it is perhaps not unreasonable conservatism to formulate in one sentence a proper rule of action. For traumatic injuries, the thumb should never be amputated. If there are exceptions to this rule. they are certainly very rare. Length is of decided importance and every effort should be made to prevent any sacrifice. Rounding the end of the bone, and under aseptic precautions, encouraging granulations and new integument, is the best surgery.

73 Twelfth St.

Cerebro-Spinal Meningitis.*

By Dr. W. S. Ross, Madisonville, Ky.

This is a malignant, non-contagious disease that prevails in all countries. It is not a new disease, as many suppose, for it has prevailed in the United States since 1806. "From 1806 to 1816 occasional outbreaks of it occurred in England, France and America. From 1816 to 1828, as far as is now known, only two epidemics of it occurred, and they were limited to small areas and were of brief duration."

"The one was at Middleton, Connecticut, and the other at Vosul, France. In 1828 it occurred in Timble county, Ohio; in 1830 at Sunderland, England, and in 1833 at Naples. After the Naples epidemic a respite from the disease appears to have occurred in both the Eastern and Western hemispheres until 1837. In that year it appeared in the south of France, in and around Boyonne, and gradually extended to isolated localities over almost the whole of France.

During the twelve years from 1837 to 1849, France suffered far more than any other country from this disease.

In the decade from 1839 to 1849, cerebro-spinal Meningitis extended to Naples, the Romana, Cicily, Gibralta, Algeria, and various places in Denmark, England and Ireland.

In 1842 the United States was again visited by cerebro-spinal meningitis in localities at a distance from the seaboard, and, therefore, apparently not by communication from Europe.

In 1842–3 it occurred in Kentucky, Tennessee, Alabama, Illinois, Mississippi and Arkansas.

From 1848 to 1850 it visited Montgomery Ala., Beaver county, Pa., Cayuga county N. Y., and New Orleans, La.

Between 1850 and 1854 there is no record of its occurrence in either hemisphere. but from 1854 to 1860 it ravaged the Scandanavian peninsula and caused more than four thousand deaths.

Since 1860 certain localities in nearly every civilized country have been severely visited by this disease. In all these countries it is justly regarded as one of the most fatal and important of the epidemic maladies.

An interesting fact in regard to these many epidemics on both continents, which have been reported by competent observers, is that they have occurred in isolated localities, far apart, and without the least evidence of transportation.

The cause of the malady has evidently arisen or been created in the places where the cases have occurred and is not susceptible of transportation so as to produce the disease elsewhere."

Cerebro-spinal meningitis resembles in this respect the diseases due to malaria. The mortality from this disease is from 60 to 70 per cent. Its cause is not known, but there are many theories advanced. Some attribute it to marsh miasm, others to a certain microbe. Sudden changes in the weather develop the disease. From my observation the disease is more severe during a cold, hard winter. I have had considerable experience with the disease. In the year 1861 to 1864 I saw and treated a number of cases; also in 1881 during February, March and April. It prevailed in those months to an alarming extent in the city of Evansville, Ind., and surrounding country.

Some cases were mild and others malignant, so much so that death would take place in a few hours after the attack, and others linger for months, leaving the patient with curved spine, blind or deaf. I have seen patients that were attacked with pain in the foot in the morning and die before night. I have seen patients that were attacked with a chill and a few hours there-

*Read before the Hopkins County Medical Society.

after blood gush from their nose and ears, and death ensue in a few hours. In such malignant cases treatment avails nothing.

I examined the brain and spinal cord of a young man who had been sick with the disease only six days when he died. I found the brain and spinal cord very much congested, an abnormal quantity of blood, pus and bacteria. The microbes found in this case had all the characteristics of the microbes found in the vomited matter from patients suffering from malarial fever. I have found the same bacteria in stagnant water and the green scum that is often seen on water. Their appearance under the microscope is oval-shape, oblong and in groups and constantly in motion. The reason that cerebo-spinal meningitis is so fatal is that the brain and spinal cord is encased in a bony structure and there is no room for expansion and hence the pressure is very great. Congestion in any other part of the system there is room for expansion and the pressure is not so great. I have often thought that it was produced by the same poison as that which produces inflammatory rheumatism. Inflammatory rheumatism attacking the brain or spinal cord will produce many of the symptoms that we meet with in cerebo-spinal meningitis. Inflammation produced by rheumatic poison does not form pus so quickly as that produced by the poison of cerebo-spinal fever, hence I cannot believe the poison to be the same.

There is no disease that presents so many different symptoms. In some cases the pupils are normal, in others dilated and in others contracted; conjunctiva injected; mind clear in some and others raving maniacs. Head and back ache is a prominent symptom, vomiting accompanies every case when the pneumogastric nerves are involved; bowels are generally constipated; rigidity of the muscles of the neck; head drawn back between the shoulders; the recti muscles are rigid; the patient will have involuntary evacuations from the bladder and bowels; the rectum stands open like a hollow tube and enemas given at this time the fluid runs out as though it was thrown into a hollow tube, convulsions are very common, especially with children; temperature in some cases high, 104-5, in others normal or below, pulse slow and weak, in others rapid and strong. I have seen cases that had black spots all over the body, some as large as my hand and others not larger than a flea-bite, hence it is called spotted fever. My mode of treating cerebro-spinal meningitis is in accordance with the symptoms of each case. If I see the patient in the congestive stage I give chloroform in dram doses internally to hasten reaction, and when reaction is established I dry cup the spine on each side the entire length and repeat if the symptoms indicate it. If there is vomiting and constipated bowels I give small doses of calomel every three hours and follow it with magnesia sulphate until free actions are produced. Should the patient suffer much pain or be restless and the pupils are dilated I do not hesitate to give one of the salts of opium until quiet. Should the patient's pupils be contracted I give hydrate chloral and bromide potassa every two or three hours until quiet.

Opium should never be given a patient that has contracted pupils as it produces coma from which the patient rarely recovers. I give quinine in those cases where it is indicated. A regulated diet, of course, is prescribed. When convalescence is established I give iod. pot. to hasten the absorption of pus.

In conclusion, I will lay stress on the importance of distinguishing what patients should have opium and those that should not. With a dilated pupil give it with impunity until your patient is relieved from pain and becomes quiet, but if your patient has a normal pupil or the least contracted withhold all preparations of opium.

Madisonville, Ky.

Rheumatism.

By A. A. Young, M. D., Newark, N. Y.

In the March number of *The Charlotte Medical Journal*, under the title, Rheumatism (a) Etiology, (b) Pathology, the writer endeavored to show that this affection is produced by the deposition, growth and reproduction of specific micro-organisms within the blood stream; that the active stage of the disease corresponds to the biology of these bacillæ; and that the observed departure from normal conditions of various organs, or parts, are produced by nature in her efforts to prevent the fully developed bacillæ from passing through another biological cycle. As an aid to nature it is the object of this paper to suggest a line of treatment more in harmony with etiological and pathological conditions.

In formulating a treatment for rheumatism, three elements at least must be recognized; the first of which is the deposition of the specific rheumatoid bacillus into some suitable culture medium of the body, presumably the blood; second, the bacillus must assume an active stage of development, must pass through its biological changes from the germinal vesicle to the perfect bacillus; third, the conditions, or so-called

sequelæ, existing after the active inflammatory action has subsided. It is evident from the conditions herein cited that the treatment must be an equally variable one. The first condition can only be met by prophylaxis, better hygienic, sanitary and dietetic conditions must be sought for and insisted upon; without these conditions the entrance and deposition of the bacillus in some suitable culture medium becomes comparatively easy; once deposited the processes of reproduction can be carried on indefinitely, and rheumatism then assume its chronic form.

The prophylactic treatment, too, must vary in accordance with the conditions and surroundings of the exposed personage; diathesis, soil, meteorological changes, &c., have an equal bearing and require separate treatment, a treatment that is self-suggestive.

The second condition is more complex and requires more careful attention. Rheumatism, as a disease, is the change produced by active biological processes of characteristic bacillæ, or the immediate effects produced upon the system during the process of their reproduction and growth. There is a relation existing between the biology of this bacillus and uric acid formation; of the latter, as is well known, there is a superabundance. It remains as yet to be demonstrated whether uric acid is the product of bacillæ development or whether their development depends largely upon the amount of uric acid present at the time and subsequent to the date of infection. The indications are that there is an intimate relation existing between the two, a disturbance of which may increase or diminish in the same ratio, the severity of the disease. To the assumption of pre-existing uric acid the writer inclines and on it bases a treatment,

The uric acid as found consists largely of minute amorphous spherules which can be changed readily by use of some of the salts of soda, especially the salicylate, into needle-like crystals, accompanying which there is an apparent improvement in the rheumatic condition, an improvement not due to uric acid elimination, but to the lessening of uric acid irritation in a mechanical way; there must, therefore, be a predisposition to relapse for the only change that has taken place is the conversion of an amorphous mass into a crystalline mass, a less irritating substance, without farther increased elimination of it through natural channels.

Immunization may become the treatment of the future, and make of rheumatism a preventable disease, while at best now it is only a curable, or rather a modifiable, disease. Immunization may be the ideal treatment, but the full fruition of which may never be realized.

The attention of the profession is probably called to a case of rheumatism after infection has taken place and the germ completed a biological cycle and prepared for the office of reproduction of its species. The indications are, from analogy, that medicinal agents do not materially affect the spore or the perfect bacillus, but may modify the growth of the developing bacillus. If this assumptiou be true then the treatment must proceed along one of two lines; the medicinal agents must come in direct contact with the germs and be their immediate destroyers, or they must eliminate from the system those elements on which their life growth depends. To destroy the bacillus *in situ* without materially affecting other elements on which human life depends is scarcely conceivable; the direct germicidal treatment may, therefore, be permissible but not advisable.

The eliminative method of treatment, under our present knowledge, appears to be the preferable one. If what has heretofore been stated be true, viz.: that there is a relation existing between bacillæ development and uric acid, then a modification of this relation must modify the disease in like ratio. Such modification can be made by the use of that most excellent eliminative agent, pilocarpin, the administration of which produces marked perspiration, marked salivation, and in fact it increases the functions of all the excretory organs of the body; and in the excreta, especially from the urinary apparatus and skin, are found in one, an appreciable increase, and in the other, the presence of uric acid or urates. As a uric acid solvent and eliminant it is par excellence, though it may not act as a bar to its formation. By the elimination of uric acid, a foreign element in abnormal quantities, an element the presence of which seems necessary for the development of the rheumatoid bacillæ, they must loose in a measure their vitality and reproductive properties, and in like ratio must the severity of the disease be lessened; distorted relations mean distorted growths.

It is said that pilocarpin exerts a deleterious effect upon the heart; that it is a powerful heart depresant; to this assertion, from personal observation extending over more than fifteen years, I am prepared to make a positive denial. On the other hand its action is believed to be beneficial on the heart by lessening the tendency to valvular complications due to uric acid irritation. Do not confound the action of F. E. Jaborandi with that of pilocarpin, for its action is modified by a poisonous element which of

itself is a heart depressant. The alkaloid is, therefore, preferable to the crude drug, for following its administration results are more positive and uniform; and to promote uniformity and efficiency the hypodermic method is by far the best. As to the size and frequency of the dose to be administered the judgment of the prescriber must dictate, for as yet there is no orthodox rule, (and may there never be one, for physicians should ever exercise independent thought and action, never become machines, running smoothly when new but rattle-traps when old.)

Illustrative cases will not be cited because of their limited number; the advent of birds does not make a spring, but may indicate its approach. Suffice it to say from an experience covering a period of over two years the writer is led to believe that the pilocarpin treatment is far less dangerous and far more efficacious than the recognized and established treatment of past years.

A passing notice only will be given to those conditions known as sequelæ; but in formulating a treatment these conditions must not be overlooked. If, as it has been inferred, that these conditions are produced by nature's efforts to cover up the fully developed bacillæ and thus in a measure render them inert, then there is danger of the liberation of some of these bacillæ and a reinfection take place, or in other words, another biological cycle will be produced. On this theory is the recurrence of rheumatism easily and reasonably explained. What then remains to be done is to approach immunization and prevent as far as possible active bacillæ development. A rheumatic anti-toxin may become one of the medical triumphs of the future, but for it we must wait and during the interval approximate the ideal by drug elimination.

The idea of the treatment herein suggested is not to directly eliminate bacillæ, for nature cares for that when they have lost their vitality, but to cause their destruction by the removal of that element on which their life growth apparently depends, viz.: Uric acid, a substance that supports the life growth of other germs as well, notably the pneumococci. Clinical evidence warrants the establishment of this theory, and a limited therapeutic experience sanctions it.

22 East Miller St.

Dr. J. B. Council and Miss Bessie Krider of Salisbury, were married on July 19th, by the Rev. Dr. Rumple. We extend our hearty congratulations to the doctor, and wish for both a long and happy life.

Primary Syphilis.

By William Frick, A M.. M. D., Lecturer on Dermatology, in the Kansas City Medical College and in the Kansas City Training School for Nurses; Dermatologist to K. C., Ft. Scott & Memphis R. R.

Great importance attaches to the primary syphilitic sore on account of prophylaxis. If the primary sore could always be seen and recognized, the secondary period could be anticipated and spread of the disease greatly curtailed.

We, therefore, consider time spent in close study of this subject well used. If the primary sore were always a typical one —an ulcerated surface with a decidedly indurated base—there would be no great difficulty in recognizing it when seen. But in my experience this typical sore occurs in a minority of cases. Some of these sores are not at all ulcerated, but simply small, hard nodules in the skin, while others present varying amounts of ulcerated surface with slightly indurated base. Some heal quite readily and are quite forgotten before the secondary eruption appears, while others obstinately persist in spite of local treatment until the secondary eruption appears and constitutional treatment is inaugurated. A considerable number of extra-genital chancres occurs in persons not suspecting any contact with syphilis. Many of the subjects of these cases are entirely ignorant of the disease and could not recognize even a typical primary sore. In such cases, if the sore is not troublesome, the disease is overlooked in its primary stage and other victims to the disease is the result.

This statement does not pertain to physicians and surgeons who contract the disease while handling syphilitic patients, for the character of the sore in such men is generally recognized, or at least suspected, and the patient is on guard if not under active treatment.

Then again, many of the genital sores are of the mixed type. The syphilitic character does not make itself apparent in the early part of the development. The appearance at first is that of a soft venereal sore or chancroid which is acknowledged to be a local disease. The syphilitic character of the lesion appear later.

To illustrate mixed infections I would like to report briefly a case occurring in my private practice.

Mr. B., twenty-two years old, applied to me for treatment in April, 1898. He had a well developed gonorrhœa, and several sores on the prepuce. The sores had made

their appearance three or four days before he came to me. The gonorrhœal discharge came two days later than the sores. A diagnosis of gonorrhœa and chancroids was made, the sores were cauterized and antiseptic dressing applied, and the gonorrhœa taken care of in the usual way. Under this treatment all of the sores healed nicely except one. About ten days after the date of beginning treatment this one was observed to have some induration about the base, while the surface remained unhealed in spite of local applications. For the first time syphilitic infection was suspected, and the evolution of this primary sore was watched with great interest.

The surface simply remained unhealed, and induration of the base became more pronounced. About forty days after first suspecting the true nature of the sore a typical secondary eruption appeared which settled the diagnosis in a most positive manner. The three diseases were contracted at the same exposure, according to my patient's history of exposures.

It has been my fortune to see perhaps a dozen of these cases—showing the existence of the three venereal diseases together. Most of them came, however, from my dispensary clinic. A much larger number I have seen, both in private and dispensary practice, of the two diseases—chancroid and chancre—occurring in the same individual at the same time. As a type of these cases we can take the case of Mr. C., a private case. He appeared first with a half dozen soft sores on glans and prepuce. Local treatment was considered the proper thing and he was so treated. There was no hardness about the base of any sore at that time. In about a week a slight amount of induration was noticed about one sore, but local treatment was adhered to. This sore healed very slowly, but finally healed before a well marked secondary eruption made its appearance and made certain the diagnosis. It is my practice to be quite slow in making a diagnosis of "not syphilitic," in these apparently local soft venereal sores. We must constantly bear in mind the fact that the soft sores develop in three or four days, while the primary syphilitic sore, or hard sore, requires two or three weeks to develop, hence it is that in these mixed infections the soft sore precedes the hard and so often obscures the diagnosis. It does no harm to let your patient know it will be necessary to watch the case a sufficient length of time to be sure there is no constitutional trouble to follow.

The principal characteristic of the primary sore is induration of the base. No matter where it occurs, if it is examined thoroughly, this quality will be found present. There may be a few exceptions, but if careful examination is made, I believe there will be very few. The induration may not be well marked in some cases, but will be found present. When a non-healing sore is seen on the lips, tongue, tonsil, finger, or any other location, we have reason to suspect this disease. If on further examination we find the sore is an indurated one and the lymphatic glands in the neighborhood are slightlo enlarged and also indurated without any tenderness, our suspicions are strengthened, and both physician and patient should be placed on guard, even if the trouble does not seem entirely clear. By so doing some one else may avoid the disaster of contracting this disease.

A young dentist, whose tonsil on one side became large and ulcerated, applied to a laryngologist for relief. A tonsilotomy was performed, but on account of the hardness of the ulcerated tonsil, he was informed of the suspicion that it might be syphilitic and conducted himself accordingly. This suspicion was made a certainty by the appearance of a fully developed secondary syphilis at about the regular time. This proved the tonsil to be the site of the primary sore. It would seem, at first thought, rather curious that the tonsil, located so far from the external surface, should become the seat of the disease. The virus must pass the lips, the tongue, and buccal surfaces, also the hard and soft palates before reaching the tonsil. But in order for this virus to receive an entrance to the circulation, there must be an abrasion of the surface, or a sufficient amount of friction to rub it into the follicles for absorption. In these cases, it seems to me, the explanation is simply that the mucous membranes are whole and afford no lodgment to the infecting material until the tonsil is reached, when a lodgment is effected, on an abraded surface or in one of the glands of the tonsil, which permits its entrance and development. Then as the primary sore always develops at the point of entrance, the tonsil becomes the point for development of the chancre.

In other localities the presence of the chancre can be traced to a cut, or bite from a syphilitic subject. Then again it is simply impossible to ascertain the source of contamination. We are sure the syphilitic poison comes in contact with an abraded surface, or at any rate gains entrance at the point of development of the chancre, but have no means of ascertaining where it came from. Hence the necessity of being able to recognize this lesion when we see it.

Room 301 Rialto Building.

Silver Solutions in Ophthalmology in the Hands of the General Practitioner.

By F. G. Stueber, M. D., Lima, Ohio.

We might ask, to what extent is it safe for the general practitioner to treat eye diseases?

At first thought the answer seems difficult; all depends upon the physician's diagnostic skill. If he can rightly diagnose the case he may perhaps treat many a case with as much success as the specialist.

Unfortunately a correct diagnosis is not always made, the practitioner, oftentimes feeling his way along, trying first one remedy then another; very often failing to carefully inspect the eyes.

To illustrate, here comes a case with injected conjunctiva (ocular and palpebral), slight secretion, perhaps a little photophobia and little or no pain. The physician has learned of the zinc and boracic acid treatment. Perhaps these are applied, and after a time the case improves. A little later another patient presents himself having symptoms not unlike the first case; however, here we have *marked photophobia*. If in a child, it is more than likely that there are minute vesicles or phlyctenules on the cornea or sclero-corneal margin. Here the boric acid is harmless, while zinc solutions, many physician's favorite remedy, are positively injurious.

If case number two happens to be an adult we may have to do with an ulcer of the cornea, or any one of the many forms of corneal disease. It is here where the zinc, lead and tannin solutions are positively harmful. It is in these cases where I wish to make a plea for the more general use of the nitrate of silver—solution varying from 1 to 4 grains to the ounce. While it is true that other agents—atropine, eserine, fomentations, &c.—may be indicated, the application of silver solution is along the right line in conjunctival as well as in corneal diseases, and it will stand the general practitioner in hand to beeome thoroughly familiar with this one agent. If he must be in doubt as regards the true condition, as regards the proper remedy, use the silver in preference to all other remedies. Closely observe all symptoms, and above all else *carefully inspect the eye*, noting the changes in the cornea; if phlyctenular trouble a little calomel dusted into the eye, together with tonic treatment, promptly cures the case. If there is infiltration or ulceration of the cornea, the above mentioned remedies, and the galvano-cautery, may be required. Here more than in diseases in other parts of the body, careful study and observation is sure to meet with success.

Acute Diffuse Gonococcus Peritonitis.

Harvey W. Cushing (Bulletin of the Johns Hopkins Hospital, May, 1899).

The gonococcus is capable of causing a specific infectious disease, namely, gonorrhea, and at the same time other and less specific pathological conditions.

There is experimental proof that in certain small animals the gonococcus can set up acute alterations in the peritoneum homologous with the acute septic serositides in man, bnt differing from these in their tendency to rapid and spontaneous healing.

Hitherto there has been wanting conclusive proof that in the peritonitides attendant upon gonorrhea occurring in women, the gonococcus was solely or chiefly concerned. The inflammations had been variously regarded as mixed infections and chemical inflammations.

The cases reported in this paper bring for the first time convincing evidence of the existence of a diffuse general inflammation of the abdominal cavity caused by the gonococcus.

It has been recognized that extension of the gonorrheal infection from the genital organs to the peritoneum may occur in the puerperal state; a similar sequel is shown to be possible during menstruation.

Such ascending forms of gonorrhea doubtless under ordinary circumstances remain localized in the pelvis, and rarely demand surgical investigation in the acute stage.

A general involvement of the peritoneum such as occurred in the two cases given, must either be rare or unrecognized, and may depend upon some especially receptive condition of the serosa or virulence of the organism.

The peritoneum is not more immune than is the pericardium or endocardium to gonococcal infection, and being more exposed suffers more commonly in females, although the relatively benign course of the disease makes it a rare condition to come to the attention of the surgeon in the acute stages.

A Fine Opening for the Young Physician.

We are too crowded in the United States but there is a land where room is plentiful and the country overrun with patients.

Russia has a population of 127,000,000 and only 18,334 physicians, or one doctor to every 6,926 inhabitants, while the United States, with a population of 75,000,000, has 120,000 physicians, or one doctor to every 625 inhabitants.

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Uterine Cough.

Dr. Schaeffer (Journal of Obstetrics and Gynecology).

1. In those predisposed, such as neuropaths and sufferers from genital diseases (especially during menstruation and pregnancy), cough may at times be induced by isolated contact with the fornix vaginæ.

2. In those so predisposed, pathological processes which involve the broad ligaments, and especially Douglas' pouch, may cause reflex coughs just as they cause reflex acne and hyperemesis. In the latter conditions abnormal fermentation and auto-inoculation are probably also present.

3. In those predisposed to cough as above stated, irritation of the lower third of vagina and vulva can occasion only local reflexes —nothing remote, such as a cough, can occur.

4. Uterine cough is produced by irritation on one side of the utero-vaginal fibers of the hypogastric plexus which supply the fornix vaginæ and collum uteri, and, on the other side, the spermatic plexus, hemorrhoidal nerves and ganglia imbedded in the broad ligaments which supply the fundus uteri and ovaries.

5. Irritants which affect the nervus pudendus are at first localized in their reflex effects.

6. Reflex phenomena may be (a) essential physiological reflexes in remote motor and vaso-motor territories, which, through the neuropathic basis, are easily set in motion; (b) radiation in the case of neuropaths, where resistance is weakened; (c) irregular radiation in high degrees of neuropathy.

7. Cases of tuberculous habitus, or predominance of stomach symptoms, play a separate part in the genesis of nervous cough.

8. Local treatment, especially by pessaries, acts promptly when pathological conditions are complicated, as in the case of retroflexion and prolapse, etc.

The attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears on page xiv, of this issue.

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RESPONSIBILITY OF PERSONS ACCUSED OF CRIME.

Dr. McDonald, the able superintendent of hospitals for the insane of the State of New York, has recently called attention in a very decided manner to the question of responsibility of persons accused of crime but who plead insanity as a reason why they should not suffer punishment. There can be no doubt that many persons have suffered the penalty of death or incarceration for crime whose proper place was in an insane asylum, and also that many have been adjudged insane, passed a short time in a retreat, and then went out in the world again and took their former place in society. In each of these cases there has probably been many errors committed; some of them due to errors of judgment, some to acuteness of attorneys. This question, of responsibility before the law of persons accused of crime, who plead insanity and thereby irresponsibility, is one not only of great interest but of the gravest consideration. There are many persons whom an alienist would pronounce insance that people of ordinary minds would say were not so; perhaps a little peculiar, but yet able to attend to their ordinary affairs. What then should be the test or criterion of responsibility? Shall it be that he that is not sane in one act is insane in all, or that if he is sane in the line of any one idea and commits an act against the law in the line of that idea he is or is not responsible? It is very evident that neither of these propositions would hold. The courts very generally hold that he who knows the character and quality of his act, and his responsibility before the law for that act, is sane in the eye of the law and must suffer the punishment for it. This seems to be established by precedent, handed down from English law. The test is: Does this accused understand his moral obligation before the people and the law? Is he able to distinguish right from wrong, so as to understand the quality of his act, and does he comprehend that certain punishment is justly awarded for that act? The learned judge will always charge the jury; Gentlemen, if you are satisfied that the accused is a person who is able to comprehend his moral responsibility for this act, and you find from the evidence, without a reasonable doubt—that doubt being reasonably drawn from the evidence, and not a vague impression of your minds—that he committed this crime, you will find him guilty as charged. If you find he has not the capacity to distinguish right from wrong, you will say so in your verdict, and you will leave the further disposition of the case to the court.

To ordinary minds this would be a fair ruling, and its application has become so rooted in practice that it would seem to need a great upheaval to disturb it. Nevertheless, the best minds of the day, both legal and medical, are not in accord with it. Under it, many persons known and proven to be insane have suffered the extreme penalty of the law, and persons on whom judgment has been stayed have been shown to be very mad indeed.

In what then lies its wrongfulness? Simply this, that while a sane man acts on his judgment, an insane one does not. It is the judgment which passes on the moral responsibility of the act, but it is the will which performs it. This is a matter that would be clear to a school boy of the present day, for mental and moral philosophy are now taught in all our schools.

So that, a person may be impelled to perform an act known to himself to be a crime or morally wrong, urged on by an impulse he cannot resist; knowing he may suffer for it, yet unable to resist the impulse which impelled him to it. He may be a person who would hate the very act, yet confess he had to do it. Such was the case of a man in New England a few years ago, who killed his children. He knew the character of the act, his moral and legal obligation under the law, and he had a parent's love for his children. Yet he could not resist the influence of the spirit which he mistook for divine to take the lives of his children that they might be more happy in another world than this. The case of Hatfield, who shot at King George III, is a peculiar one. Here was a man who wished to end his own life, though he did not want to take it himself. Neither did he wish to take the life of the king, He had a horror of either. He knew that the very act of shooting at or towards the king would be sufficient to sen-

tence him to death, and so he shot. Had this man been hung, an insane man would have been wrongfully killed. It was virtually a case of attempted self-destruction; and our courts decide that suicide is prima facie evidence of insanity. This principle would have been correct in his case. for he became violently insane.

Another class of cases are like that of Giteau, who shot President Garfield. In these the man knows the character and quality of the act and the certainty of punishment, but has a develish desire to commit crime for the sake of the crime itseli. itself. And what shall be said of a very recent case reported in the daily papers, where a wife cut her husband's throat in his sleep that she might see what his blood looked like.

The courts are full of cases of an anomalous nature, that cannot be with justice brought under the accepted ruling.

Not only in the cases cited but in all others, where crime is committed, the test should not be, Does the accused understand the nature and quality of his act and his responsibility for it, but, while knowing this, has he the power to resist the impulses to commit the act.

But, it may be said, if this rule be established what safety has the community against crime? Would not all murders go on the stand and plead a weak will or an insane impulse? The answer to that is, that in all such cases the question of sanity should be decided by expert testimony; not that of a person paid a large fee to testify on one side or the other, but one of undoubted skill and probity, selected by the court and paid by the State. That expert alienist testimony has become a by-word cannot be denied; but it can be reformed, and as it is of the greatest importance in these cases, it should be put above reproach.

THE PASSING OF ALCOHOL.

The past three years have witnessed a great decline in the use of alcohol and a change of opinion among the authorities in regard to it.

The indications for its use are becoming more and more circumscribed and abridged, though it is, perhaps, more proper to say that the indications are now being recognized and studied. In the years gone by it was customary to give alcohol, not for any special indication, but simply because the patient was sick in bed, or only feeling badly. It was a common remedy found in nearly every home, easy to take, not at all dangerous, having a decided effect, chiefly upon the mind, in a very short while; it also had a reputation, venerable by all antiquity, of being the king of stimulants; that by its use in a critical moment, men had been snatched from the very jaws of death; that it was the one remedy to give first and freely in all cases of accident.

To-day men are studying its composition, its doses, its effect upon the heart, the nervous system, the kidney, and the liver; king no more except it shall stand the test, for scientists and workers in the laboratory, with unsanctified hands and indifferent hearts are analyzing this ruler of stimulation which the people have set up. The end is not yet, though it has been shown that the feet are of clay.

Among the students of the drug it was first announced that alcohol was only a stimulant in certain moderate doses, after that it was sedative.

The report is now abroad that it is an anesthetic and sedative in all doses, that it has a primary stage of excitement, but is never truly stimulating.

But another reputation had alcohol some years ago, that it was an appetizer, a tonic, assisting digestion, promoting strength, leading back with a strong hand reluctant health. To-day there are men rising up to deny this, claiming in certain diseases of the gastric mucosa that it is even injurious as a medicine.

And that which once we gave in place of food for the fever famished body, must now sit upon the shelf under suspicion of having beckoned on, rather than fought back, the angel and the shroud. Scientific men are even beginning to study the relationship of alcohol as a beverage and the liability to certain diseases or to a particular form of any disease.

Dr. Le Gendre, of Paris, has come to the following conclusions:

1. The abuse of alcoholic beverages predisposes to and aggravates most of the diseases found in hospitals.

2. All alcoholic beverages are harmful. The most noxious are those containing aromatic essences, for instance, absinthe and the so-called aperitive or aperient bitters.

3. Alcoholic beverages are productive of most harm when taken upon an empty stomach, or when taken between meals.

4. An individual making an habitual use of alcohol or of various liquors, or of too much wine (more than one litre daily) inevitably becomes an alcoholic, even if he has never been in a state of drunkenness.

5. Alcohol is a poison, the habitual use of which, sooner or later, but nevertheless unfailingly, impairs the structure of organs most essential to life; the stomach, the liver,

the kidneys, the blood-vessels, the heart and the brain.

6. Alcohol is an excitant, a stimulant, but not a strength-producing agent.

7. It does not take the place of food. It creates a distaste for food.

8. He who frequently drinks alcohol, or who drinks too much wine (more than a litre daily) is more susceptible to disease. If he becomes ill, his illness is always more serious. The habitual drinker is exposed to delirium tremens.

9. Alcohol, by weakening the lungs, prepares the soil for phthisis; many a consumptive has been an alcoholic. Alcohol weakens tissue resistance,

10. Among the children of alcoholic parents are recruited the idiots, the epileptics, the mentally and physically dwarfed, according to the Medical Standard.

Sir James Clark, in "A Treatise on Pulmonary Consumption," says that "among the causes of tuberculous cachexia, a free indulgence in alcoholic spirits holds an important place; while this pernicious habit is one of the most powerful means of debasing the morals of the people, and of extinguishing the best feelings of human nature, it is no less effective in destroying the physical constitution. There is good reason to believe that the use of spirituous liquors among the working classes of the country is productive of consumption and tuberculous diseases to an extent far beyond what is usually imagined. The blanched, cadaverous aspect of spirit-drinker bespeaks the condition of his internal organs. The tale of his moral and physical degradation is indelibly written on his countenance. The evil, however, does not rest here, for by destroying his own health he entails on his unhappy offspring the predisposition to tuberculous disease."

Dr. Joseph M. Mathews, president of the American Medical Association, writes to the editor of The New Voice as follows:

"It is the consensus of opinion of the medical profession that where a reduced vitalty of the system is brought about from any cause or condition, that said loss of tone of the physical body would induce to a tuberculous disposition. In other words, that by the free use of alcoholic spirits the physical body is brought to a low standard of health, and would predispose the same to and produce a soil in the lung in which the special germ could propagate rapidly."

These things are only straws, perhaps, but they show that a current of professional opinion has set in from the East and the time is coming when we will prescribe alcohol intelligently, for certain indications, in certain doses. As a beverage, however, men will not cease from drinking until they are given a new thirst and a new throat.

THE EVOLUTION OF THERAPY.

Dr. Simon Baruch, of New York, delivered the annual oration on this subject before the Eleventh Annual Meeting of the Society of Alumni of the Medical College of Virginia.

The subject was developed along the following lines:

What is the status of therapeutics to-day? How does it compare with that of the past? How may we attain an individual and collective improvement from a retrospective analysis of the therapeutic aims of our predecessors? How may a better therapy be evolved? As reported in the Medical Register.

Hippocrates was held up as the real father of medicine and that even at this day the nearer we kept to the ideas of Hippocrates, the nearer right we would be. The progress of medicine is traced step by step up to the close of the 18th Century.

We shall await with interest the appearance of the concluding part of the oration.

Dr. Baruch is himself one of the leaders in the Therapeutic Art and Science, so that he is well qualified to produce an excellent oration on this subject.

ABOUT THE STATE BOARD OF MEDICAL EXAMINERS.

We are hearing a great deal these days about the different State Medical Examining Boards, and we are reminded again and again that they should recognize each other's license to practice medicine.

This courtesy between the State Boards has been particularly urged for adjoining States, and in every Presidential address for the past few years in North Carolina, this matter has been brought to the attention of the doctors.

The practical workings of such a system would be disastrous not only to the physicians of the State, but to the medical profession as a body. Let us suppose that Virginia and North Carolina would have this proposed arrangement so that any one licensed by the Virginia Board could practice in North Carolina, and *vice versa*; it would be impossible for the two Boards to maintain the same standard, or granting that they could, the impression would speedily grow up in the mind of the applicants that the North Carolina Board was the easiest and they would all come here, or they would decide that the Virginia examination was much the easiest and they would all flock to Virginia. And then the

present law does not inconvenience one per cent. of the applicants, one who expects to practice in North Carolina should be willing to submit to the laws of the State, and he is as a usual thing. The continual agitation of the subject does not bring any tolution of the question as it is impracticable, and every State should be allowed the right to say who shall practice medicine within her borders and who shall not. We feel sure that the State laws in regard to the practice of medicine have done an inconceivable amount of good, and that this has been accomplished slowly and surely without working hardship to any one, and we feel sure that any tampering with our State law as it exists, whereby the licentiates of other States can be admitted without an examination, will be followed in a very short time by the decline of the medical standard and the resurrection of the cheap John medical schools throughout the country. To my mind no one thing has been more powerful in the stimulation and development of higher medical education in our schools, than the individual State laws regulating the practice of medicine, and if this stimulus is removed, or even endangered, we will have a revival of the racket school and the cheap doctor.

THE NORTH CAROLINA AIR CO.--UNLIMITED.

This is an age of invention and discovery, and we see no reason why the above company could not be organized at once. We see no reason why fresh, cool mountain air could not be piped from Blowing Rock to the Parks in Charlotte if necessary.

The air in Charlotte is all right as it is, but just for a change sometimes people leave Charlotte to spend awhile at the Coast or in the mountains. With a large blower and the proper piping this air and climate could be delivered in a man's front yard at a very small cost and in unlimited quantities. All well equipped houses could then have a summer room, with faucets labeled, "Mountain Air, Blowing Rock;" "Sea Breeze, Wrightsville;" "Ozone Zephers, Battery Park;" "Salty Inhalations, Morehead City;" etc.

In case a physician wanted to prescribe a change of air, it would be only necessary to direct the patient to spend six hours a day in the summer house with the proper current turned on. Some may object that the air would become stagnant in the long pipes when not used frequently, but the main pipe would be tapped all along the line in a very short while and some one would be using it all the time or at the worst it would only be necessary to let the air run while you smoked a cigar and it would very soon become fresh and pure. People who long for the country at certain seasons of the year could be successfully treated by having a pipe from a large fodder field or hay meadow or stumpy new ground, depending on the character of the longings. It may be claimed that the mental effect of a change of climate would be lost, this could be managed by having with the mountain air a game of solitaire, or some private theatricals by the neighbors; and with the sea current, an old brass horn and two or three girls in bathing suits loafing around on the macadam, a small board walk could be constructed very cheaply, and for the mosquitoes a rusty sewing machine needle, properly used, would make everything very realistic.

We have the finest air in the world right here in North Carolina and why not deliver it in New York, or Chicago, or Washington at so much a cubic mile, (for we have plenty of it)?

THE NEW COURSE OF STUDY AT THE HARVARD MEDICAL SCHOOL.

As one of the prominent four-year schools in the country, the Harvard Medical will make a radical change, beginning with the Fall term, in its course of study. The result will be watched with much interest.

The outline of the change, according to the Boston Medical and Surgical Journal, is as follows:

The first half of the first year has hitherto embraced the study of anatomy, physiology, physiological chemistry, and histology, on a scheme of lectures and laboratory hours much like that pursued in the college proper. By the new plan all the mornings of October, November and December, and the mornings and afternoons of January will be devoted to anatomy, the allied branches of which, histology and embryology, will be taken up in the afternoons of the first three months. During the second half-year, which until now included anatomy, physiology, physiological chemistry, bacteriology and embryology, the student will hereafter study physiology for the mornings of February, March, April and all day in May, with physiological chemistry on the afternoons up to the first of May.

The changes in the second year's work are of even more importance. Full courses in pathology, clinical chemistry, second year anatomy, and therapeutics, together with half-courses (without examination) in auscultation and percussion, theory and practice, clinical medicine, bandaging and

surgical pathology, have heretofore comprised the second year's course. In place of these, which run throughout the year, the first half-year's work will be on pathology during the mornings of October and November, and all day in December. For the afternoon in October and November there will be a course in bacteriology. The work for January will comprise a number of optional courses in pathology. During the last half of this second year, the student will study a number of elementary subjects introductory to the clinical work of the third and fourth years. These subjects are auscultation, clinical chemistry, theory and practice, therapeutics, surgical pathology, bandaging and clinical medicine. They will occupy twenty-six hours and a half a week.

It would seem that this will be a great improvement over the old methods of learning everything at once and oftentimes of learning things out of their natural order.

During the old-time plan of making doctors every two years, things had to be crowded somewhat, and now when there is plenty of time, it seems strange that the curriculum should be held with such a tight grip.

By the new scheme, the student will have studied both gross and microscopic anatomy before he undertakes physiology, and will have completed his work in anatomy before he undertakes pathological anatomy or pathology. He will, for example, know the principles of structure of the nervous system before he is called upon to study its functions, evidently a distinct advantage not only to the student but also to the instructor in physiology.

THE CAUSE OF CANCER.

Medical scientists and investigators are hard at work on the track of the cancer germ and while they are wrecked and side-tracked occasionally, still the end of every year finds some progress.

We see every little while some premature description of the specific cause of cancer with the detailed account of a sure method of cure and a certain plan of preventive treatment, but the cause, the method and the plan are trampled down by the onward march and they are thrown out upon the pile of useless and abandoned things, neglected and forgotten. Only a few days ago word has come from London through the secular press, of the discovery, by a London specialist, of the real cause of cancer, which is demonstrated by the discoverer's ability to produce cancer at will in any animal. In the search for specific causes this is the last and conclusive test of genuineness, viz: the fact that the supposed cause in man is the real and actual cause in every animal experimented upon. This would seem decisive proof of a real discovery, but like most of the scientific reports that come to us through the channels of the secular press, we fear that there is a missing link in the chain, a link which we will sadly miss when we essay to bind this enemy of health, this archangel of death, whose twin brother is consumption and whose children are despair and utter hopelessness.

The discovery of the real cause would be quite an advance, but even this would not mean that a remedy was absolutely sure. We know all about the specific cause of consumption and yet we have no specific cure. The question of malignancy brings with it a host of other questions. Cohnheim claimed that malignancy was a negative condition of the tissues. We know that a bit of tumor placed in the tissues of a healthy person may grow for a short time, but it is soon cast off and the injury completely healed; this is "Pysiological Resistance" and it is the absence of this condition which allows, rather than causes, malignancy.

This view is in accord with experience in other diseases, when we have a specific known cause, notice tuberculosis, granting the specific germ and the manner of contagion, we can only explain, why all do not contract the disease by saying that the resistance of the healthy cell overcomes the germ before he can gain a foothold. Many people drink the germs of typhoid fever day after day, but they are not prostrated with the disease for the same reason doubtless.

For the most effective cause of cancer then we must look among the things that interfere with or destroy this natural resistance. Green well classifies these things under three heads:

1st. *Inflammation*, interfering with the normal condition of the part, producing congestion, elevation of temperature and even destruction of tissue, which will, of course, lead directly to lowered resistance on the part of the area of inflammation.

2nd. *Age*, as at certain ages various organs of the body undergo a kind of retrograde metamorphasis with atrophy and loss of function.

3rd. *Heredity*, that peculiar condition of certain cells, or all the cells in the body, in which they are lacking in force and power as living things, a condition handed down from parent to child accentuated by habits and environment.

Any one of these causes acting persist-

ently and with full force may cause malignancy; if all three act together at one definite point, the result is almost sure to be a malignant growth. No one can take a strong man's goods except he first bind the strong man; no germ of cancer can destroy the body except it first overcome the living cell.

THE YELLOW FEVER SITUATION IN CUBA.

It is hard to estimate how much Cuba has cost us in the way of yellow fever epidemics which she has so neighborly passed along to our Southern and Eastern ports, certainly much more than the land value of the entire island.

The epidemic in one State last year paralyzed business to such an extent that even the Government was temporarily suspended. The epidemic of 1870 cost enough in dollars and cents to buy up a couple of Cubas.

Havana and Santiago have been the two chief ports from which the disease was spread to our shores and it is most interesting to note how much has been done for the sanitary conditions of these two cities in the past six months. Last year at this time Havana was a perfect hot-bed of filth and uncleanness, the germs of almost all diseases walked the streets in droves or clouded the air with their swarms and now it is a safe place to live even in the summer time and next year will be a most delightful winter resort.

The improvement in the condition of Santiago is no less marked. Dr. Wood is a practical physician well versed in his profession, as well as a soldier of rare courage and an executive officer of unusual ability. His hand has been felt in the sanitary regeneration of Santiago.

The elevation of a weight means the using of so much force and power, the force being in direct proportion to the weight and distance. To raise these cities from dirt and degradation means work, hard, expensive work, but it is our duty, looking at it from a selfish point of view. It will take an awful amount of weights and ropes and pulleys, but as we must be neighbors to Cuba for all the years to come, we should not cease in our work of attempting to lift her up as a matter of personal safety.

The work of Sanarelli and Doty has been worth much for the better understanding of yellow fever, and while the study of specific causes is sometimes a seeming failure, yet when faithfully done it always leads to something worth the working for.

The serum promises much in the way of prevention and in stopping an epidemic, but we all realize how much easier and better it is to stop a thing before it starts, and the hard work along the lines of improved sanitary conditions which has been done in Cuba during the last six months will after all do more for the prevention and cure of yellow fever than anything else.

THE NEW ENGLAND ANTI-VIVISECTION SOCIETY MONTHLY.

The June number of this very interesting publication is before us as the official organ of the Society. It contains twenty pages, more or less, depending somewhat on what it takes to make a page. Page 1 is title, contents, etc. Page 2 is an illustrated answer to the great question "Quo Vadis" Hear the law and the prophets, "*Every Vivisector longs in his heart for human victims to vivisect.*"

It is true, we have felt it in our own heart since reading the Juue issue of the *New England Anti-Vivisection Society Monthly.* If one had told us this two years ago we should have scorned the idea, that man could sink so low as to vivisect his own brother in the flesh, that they should even clamor for his blood to drink and fidget to get their fingers fastened in his cervical plexus. But so they do and the mouth of the Boston Society has spoken it and to make assurance doubly sure the *Medical Brief* is quoted which is like clinching a wrought iron nail.

Somehow we feel like reasoning with these people, but there is no reasoning with a post or a fanatic, or a crank making 3000 revolutions to the minute, and so we only express an opinion that the nervous system of our Boston brother stops short at the *medulla*, that all above that is a kind of *neuroma*, nerve tumor without proper functions, and that if a trap door operation was done, the tumor removed close down to the medulla and the cavity filled with some indifferent substance, like printers' ink, or sawdust, or ginger ale, he would make a fairly useful citizen. Otherwise we are heartily in a favor of vivisecting all the *antis* without the use of chloroform, as owing to the peculiar arrangement of the nervous system mentioned above they will not suffer in the ordinary sense of the word.

We notice the death of the wife of Dr. John E. Woodbridge, which occurred at Augusta, Ga., recently. This sad bereavement has broken up a happy home, and we extend our sympathy.

Dr. Woodbridge will spend some time in Europe, for a much needed rest before settling down to work again.

DR. WILLIAM R. WOOD.

The death of this well known physician occurred at his home in Scotland Neck, Tuesday, July 11th, 1899. He was among the great men who sustain and perpetuate the dignity and honor belonging to the practice of medicine. He was a prominent member of the State Society, a faithful attendant and one deeply concerned in its welfare. He was a member and President of the State Board of Medical Examiners from 1884 to 1890, filling this position with honor to the Society and credit to himself. For his long and faithful services he was elected an Honorary Fellow of the Society, and his memory will be handed down so long as the Society has any records of its history.

He was born in Washington county, N. C., in 1834. and was 65 years of age.

He served with distinction during the civil war, being captain of Co. G., 1st N. C. Cavalry, when only 27 years of age. He was severely wounded at Gettysburg, and he entered the medical department where he remained until the close of the war. In 1865 Dr. Wood settled at Scotland Neck, and this has been his home since. The profession has lost a useful member and the Society one of her faithful workers in the death of Dr. Wood.

THE PAN-AMERICAN MEDICAL CONGRESS

The Transactions of the second Pan-American Medical Congress are out in two very handsomely prepared volumes. The official languages of the Congress were English, French and Spanish, and the Transactions appear in these languages. About half of the first volume is taken up with Executive Business, while the latter part contains the work of the Section on General Medicine, Pathology and Therapeutics. In these sections are papers by Pepper, Holmes of Denver, Turck of Chicago, Lowry of Omaha, Kellog of Battle Creek, and others of equal note and prominence in the medical world.

The second volume is much larger than the first, containing the work done by the other fourteen sections.

Both volumes are handsomely and profusely illustrated, and the editor and printers deserve all praise for their work.

We remember that this Congress met in Mexico City, November 16–19, 1896, and it seems that there has been unnecessary delay in getting out these published proceedings. One year was certainly plenty time in which to do the work.

But aside from the delay the work is certainly first-class in every way.

YELLOW FEVER ON THE VIRGINIA COAST.

While the American is busy working down in Cuba to stamp out the yellow plague, it breaks out in a most virulent form right at our door. Thirty-seven cases developed at the National Soldier's Home near Hampton, Va., almost at once with seven deaths. A panic is set up among the many visitors to the sea side, and the big hotels along the coast have been speedily vacated.

It is thought that a soldier lately returned from Santiago brought the disease into the Soldier's Home.

The surrounding towns are very much exercised over the threatened epidemic, Newport News, Old Point, Norfolk and Portsmouth are all full of talk and advice on the situation. The Marine-Hospital service has taken the matter in hand and we may feel comparatively safe, inasmuch as everything necessary will be done to prevent a spread of the disease. The very practical advice of Dr. Souchon on another page, concerning travel from an infected district, will now be read with more than ordinary interest.

The Surgeon General of the Marine-Hospital service can be depended upon, however, and he is thoroughly posted on the practical management of a yellow fever outbreak.

We hope the quarantine can be managed so as to give the minimum amount of interference with business and at the same time the maximum amount of safety to the people.

SURGEON JAMES M. PARROTT, U. S. A.

Dr. Parrott, of Kinston, well known to all of us as a young man of unusual ability, has been appointed Acting Assistant Surgeon in the United States Army.

He is a young man with all of his life before him, and it is not prophesy. but simply stating the facts, when we say that he will make his mark in the medical world. Dr. Parrott was a valuable member of our State Society, he was elected Vice-President at the Asheville meeting, and we are sorry to see him leave the State.

He will report to General Brookes at Havana, having sailed from New York, July 13th.

We extend our congratulations and feel sure that Dr. Parrott will reflect credit upon the North Carolina doctor in his ready ability to discharge all the duties Uncle Sam may lay upon him.

Dr. James W. McGee has been appointed superintendent of health of Raleigh, N. C. A good selection.

SALOL IN TYPHOID FEVER.

We are coming more and more to understand the pathological lesions, and, therefore, the rational treatment, of typhoid fever. The weight of all authority and the testimony of all experience are against the time honored theory that typhoid is a local intestinal disease and all so-called specific treatment, which has only a local action, must be cast aside as unscientific and unreasonable.

But the fact remains, that with all our modern knowledge we can not get away from the self-evident truth that the local intestinal condition is a prominent part in the majority of cases. The generation of toxins in the intestines, their ready absorption, the formation of gas with its attending discomfort, pain and danger, are no small items in the long list of things which go to make this disease exceedingly dangerous to life.

While the disease must be considered as a general and not a local one, still the majority of fatal cases originate and are caused by the intestinal condition, as hemorrhage and perforation. So that it becomes the duty of every man to see after the disease process in the intestine and though we have no specific for the general infection, let us not neglect to do all we can for the local condition.

Of all the remedies for the treatment of the intestinal condition, in my opinion and experience, salol stands at the head. It is my custom to give 10 grs. every four hours throughout the course of the disease, and in this dose it may be depended upon to keep the bowels flat and free from gas, that it does this by its antiseptic action can not be doubted. I certainly believe that the intestinal lesion is not all of typhoid fever, but I do believe that the control of the intestinal complication is more than half the battle. I have treated a number of cases during the past three years with this remedy almost alone and with uniform good results, without a single untoward symptom which could be blamed to the salol. Now I realize that there are a few cases that will do well on colored water and regulated diet, but no one could treat every case in this way with uniform results; with salol in sufficient amount it is possible to treat every case successfully so far as the intestines are concerned. The usual administration of salol is without effect because the dose is entirely too small. You can't have much antiseptic action in forty feet of bowels from 1-10 gr. of calomel, neither will you have much from 2 gr. of salol three times a day. Give larger doses, and do not be afraid of any bad effect upon the kidney or any other organ of the body.

HOTEL ACCOMMODATION AT COLUMBUS.

We gather from the Medical Age that there was some crowding among the delegates to the American Medical Association. In fact, that they slept six in a room, or walked the streets by way of resting. The A. M. A. is getting to be great in size and it is a matter of importance that the delegates and members be properly and comfortably housed, otherwise there will be a falling off in attendance, or a falling on—those who are to blame.

We feel sure that the Columbus doctors did all in their power to house the doctors and otherwise care for them, and any inconvenience suffered by those in attendance was due to lack of material things. Next year at Atlantic City every one should have plenty of room, as there are hotels there as large as a cotton patch in S. C.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.

A copy of the Transactions of the Asheville meeting has been received. The volume contains over two hundred and fifty pages, well printed on extra laid paper and is handsomely bound. In appearance, accuracy and arrangement the Transactions this year compare favorably with those of any Society North or West. We feel proud of the evident progress we are making. We would feel remiss in our duty if we did not recognize the ability Dr. Pressly, the Sectary, has manifested in getting out these Transactions. Only two months since the Society met, and here are our Transactions handsomely and accurately prepared, and at a cost surprisingly small; especially if compared with the prices the Society has formerly paid.

BOOK REVIEWS.

The Mechanics of Surgery, conprising Detailed Descriptions, Illustrations and Lists of the Instruments, Appliances and Furniture necessary in Modern Surgical Art. By Charles Truax, Chicago, U. S. A. 1899. 1024 pages; Cloth.

This is a new subject for the book-writer but Mr. Truax has surely had abundant opportunity to learn all about the mechanical part of surgery and it is to the profit of the profession that he has gathered his knowledge together in a well written book.

The pathology, etiology, prognosis and

non-mechanical treatment of disease have been studiously avoided, the aim of the author being to illustrate and describe such mechanical appliances as research and experience have proved to be suitable, or best adapted to the purposes for which they were designed.

Every part of the subject is covered, every operation imaginable is treated so far as the necessary instruments are concerned, also the *Transportation of Patients*, *Equipment of Hospital*, *Operating Apartments and Equipment*.

2381 illustrations are used in connection with the text. It must prove a valuable book to any surgeon.

A Systematic Treatise on Materia Medica and Therapeutics with Reference to the Most Direct Action of Drugs by Finley Ellingwood, M. D., Professor of Materia Medica in Bennett Medical College, Chicago, Late Professor of Chemistry in Bennett Medical College, Author of "A Synopsis of Medical Chemistry," "Manual of Urinalysis," Editor of the Chicago Medical Times, With a Condensed Consideration of Pharmacy and Pharmacognosy, by Prof. John Uri Lloyd, Ph.D., Late President American Pharmaceutical Association, Professor of Chemistry and Pharmacy in the Medical Institute of Cincinnati, Author of "Etidorbpa." Chicago Medical Press Co., 103 State St., Chicago. Cloth. 706 Pages.

This is a thoroughly up-to-date work on materia medica from the standpoint of the eclectic physician. Dr. Ellingwood as a teacher and editor has been in a position to keep himself thoroughly posted as to the advances made in this department of medicine in the past few years. The author divides his subject into ten groups. Agents acting upon the respiratory tract, upon the stomach, upon the intestinal glandular organs and upon the intestinal canal, upon the blood, upon the genito-urinary organs, upon the female reproductive organs. Hæmostatics; agents acting upon micro-organisms and parasites, with a chapter on electricity. The effort of the work is to show the homogeneity and to exhibit the characteristic traits of eclecticism with distinctness, to preserve its integrity and to impress others with the essential cardinal truths.

We notice *Bicycle heart* in the index of diseases which shows how up-to-date it is. The printing and binding are excellent.

Annual Report of the Supervising Surgeon-General of the Marine-Hospital Service of the United States, for the fiscal year 1898. Washington; Government Printing Office. 1899.

This is the centennial year of the Marine-Hospital Service, though this volume is the 27th Annual Report. The report in full makes a good sized book of 866 pages, and contains a lot of information of interest to the physician. A section is devoted to information for those desiring to enter the medical corps of the service. The number of patients treated during the year was 52,709. The financial condition of the service seems to be in first-class shape, the expenditures for the year were $600,130.45, leaving a balance on hand of $514,997.83. The Tonnage tax brought in $844,094.85 during 1898.

Nearly one hundred pages are devoted to Reports of Fatal Cases with Necropsies.

A number of articles are contributed by some of the best men in the service.

Under the section of Public Health there is valuable information, on Cholera, Yellow Fever, Small Pox, Plague, and Leprosy. The report of the Hygienic Labratory contains the results of some special investigations in regard to Infections caused by the Pneumococcus, Pseudo-diphtheria bacillus, the Bacillus Typhosus and the Etiology of Variola.

Transactions of the Eclectic Medical Society of the State of New York, 1898 and 1899; Vol. XVIII. Edited by George W. Boskowitz, A M., M. D., Olean, N. Y. Olean Evening Herald Print. 1899.

The Eclectic Society of New York publish two years transactions in one volume, making a book of 328 pages. The 1899 meeting was held in Albany, Feb'y 15 and 16. The book contains several well written papers, among them we notice two on Alcohol by J. H. Yarnall and C.W. King. The value of alcohol as an antiseptic in the dressing of wounds is brought out.

The next meeting of the Society will be held in Syracuse, N. Y., May 1900, with Dr. F. D. Gridley, of Binghamton, President, and Dr. S. A. Hardy, of New York, as Secretary.

LITERARY NOTES.

Scribner's Magazine for July has as a frontispiece a fine wood engraving by Gustav Kruell. It is from a very rare daguerreotype of Daniel Webster, and accompanies Senator Hoar's paper on Webster, for which he has been collecting material for many years. There are a number of unpublished manuscripts and some new material revealing how Webster prepared his great speeches. Parallel passages are given, showing remarkable divergence between the spoken and written orations.

In the August Forum, Hon. Thomas S. Harrison, United States agent and consul-general in Eeypt, pays a high tribute to Lord Cromer's administration in Egypt; Prof. Edwin H. Hall of Harvard shows what liquid air cannot do; Prof. Mary Roberts Smith writes of "Domestic Service: the Responsibility of Employers"; Mr. Leopold Gmelin gives a German's views of American architecture; Prof. Roland P. Falkner asks "Have We Sufficient Gold in Circulation?" and Mr. Lawrence J. Burpee discusses "Recent Canadian Fiction."

In the American Monthly Review of Reviews for August the editor comments on educational conditions in the South, with reference to the future of both the white and colored races. In the same magazine is the address delivered at the Capon Springs, W. Va., conference in June by Dr. J. L. M. Curry, one of the foremost educational leaders of the South and an active executive officer of the Peabody and Slater funds.

MISCELLANEOUS.

The Diagnosis and Treatment of Mastoiditis.

The early diagnosis and the proper treatment of inflammation affecting the mastoid cells are very important. Dr. John P. Davidson, in a paper read before the Richmond Academy of Medicine and Surgery, reported in the Medical Register, brings out the cardinal points in this disease very clearly.

In speaking of the diagnosis, he calls attention to the fact that when inflammation of the mastoid process is uncomplicated by any other diseased condition save inflammation involving the tympanic cavity, the cardinal symptoms are readily discovered and are abundantly significant to warrant a positive diagnosis.

The existence of pain, and more especially tenderness, at some point over the mastoid bone. sagging of the postero-superior wall of the canal, and a discharge from the ear, are commonly regarded as sufficient evidence of the presence of a suppurating process within the mastoid structure. Unfortunately, these symptoms, together with less important ones, are sometimes masked by complications of such a nature as to render the diagnosis exceedingly difficult and at times impossible.

Usually the most important symptom is pain over the mastoid region, which frequently radiates in different directions over the side of the head and sometimes forward along the branches of the Fifth nerve. It is deep-seated and of a dull, aching character, and often out of proportion to the constitutional symptoms. Additional value may be attached to this symptom when it supervenes upon, or rather follows, a previous attack of pain in the middle ear. The pain in many cases is increased when the head is moved in different directions, owing to the action of the sterno-mastoid muscle. This is particularly true when the tip of the bone is involved.

Unquestionably the most valuable of all symptoms is tenderness upon deep pressure. This necessarily varies in degree, as it also does in location in different cases. Great care is necessary to differentiate tenderness located in the bone from the more superficial inflammations occurring in the auditory canal, such as circumscribed or diffuse otitis externa.

When the examination is made to detect tenderness, the pressure should be made by the thumb with the fingers of the same hand turned towards the back of the head. The pressure should be directed backwards and inward, and under no circumstances forward *toward the canal.* If the slightest movement of the canal is made by the pressure being directed forward, the existence of an inflammatory process in the canal will invariably cause pain. This misconception is more likely to be made when œdema exists over the mastoid region—a condition which probably accompanies the superficial inflammations almost as frequently as it does suppuration invading the osseous structures.

It has been stated that the point at which tenderness is found varies. Its most constant occurrence is immediately over the mastoid antrum, which lies directly behind the upper border of the bony meatus. Its next most frequent occurrence is in the extreme tip of the bone. Here, again, it is necessary not to conflict tenderness of the tip with that of the glands of the neck, or an inflamed Eustachian tube, which may be done if the soft structures are pressed upon. Tenderness may occur at any other point over the entire bone, making it important, therefore, to make pressure at every point and even over the region posterior to the mastoid, and finally the two sides should be compared.

A symptom which is only second in value to that of tenderness upon deep pressure is the bulging of the upper posterior portion of the drum membrane and the adjacent portion of the canal. The antral cavity lies above and slightly posterior to the pos-

tero-superior portion of the canal at its inner extremity, and in the normal bone the cavity is separated from the auditory canal only by pneumatic spaces. It is, therefore, easily understood why the products of inflammation should gravitate in this direction, since it is the lowest point and also the point of least resistance. This symptom frequently exists to such a degree as to obscure any view of the drum, and the spontaneous evacuation of pus often occurs here.

In children, owing to the lack of development of the bony meatus, the inflammatory products frequently burrow along the posterior canal wall and cause œdema and sometimes subperiosteal collections of pus behind the auricle. Perforation through the outer table is also more likely to occur in children since the antrum is not located as far from the surface in a child, and the bone is thinner, softer, and less resistant.

Cases of long standing are sometimes complicated by perforation through the tip of the bone on the inner side, thereby permitting the discharge of pus into the digastric fossa, spreading into the soft structures of the neck. Such a condition should not be confounded with the glandular involvement due to the more superficial inflammations, nor with the much more grave condition of thrombus extending down the jugular vein.

Ordinarily mastoid inflammation is accompanied by a discharge from the auditory canal. It is not a rare condition, however, to find the extension of infection into the antrum and mastoid cells with the drum membrane intact, and cases have occurred without any manifestation of the existence of inflammation in the middle ear. Such cases are very exceptional, but we practically always find a bulging drum accompanied by the characteristic symptoms of tympanic disease when there is no discharge present.

When the foregoing symptoms are present in conjunction with aural discharge, we find the quantity, and to some extent the character, to be of no little importance. If the discharge furnished by a case of tympanic inflammation suddenly ceases, or, more properly, diminishes, and particularly if the pain increases, the condition is almost if not quite pathognomonic of involvement of the mastoid cells. It may be stated, furthermore, that the destruction of bone progresses rapidly in such cases owing to the spread of inflammatory materials in directions other than that of the canal. Moreover, if a profuse discharge develops, it may be considered indicative of a similar condition, and the increase in the quantity is explained by the fact that the mastoid cells are draining into the middle ear.

The character of such a discharge is, of course, purulent, but it is rarely ever odorous, which perhaps is explained by its watery character and by its being so rapidly formed. It is needless to add that the source of the discharge should be correctly ascertained and not mistaken for those which occur in diseases of the external canal and its surrounding structures, which sometimes find egress for their purulent discharges through the fibro-cartilaginous portion of the canal.

Facial paralysis occasionally occurs, but this symptom furnishes little aid in diagnosis, as it also complicates middle-ear suppuration, pure and simple, quite as often.

Temperature gives us no positive evidence toward the establishment of a diagnosis of uncomplicated mastoid disease, though it is a symptom which should be frequently recorded. The range of temperature has to be given as varying from the normal to that of 104 deg. to 105 deg,, the higher fevers being found usually in children, as would naturally be supposed. The degree of temperature is of no value whatever in determining the extent of the disease, and it is not uncommon to find the greatest destruction of bone with only a fraction of a degree of fever. The temperature should be recorded as often as every two hours, notwithstanding its frequently insignificant aid to us in the diagnosis of uncomplicated mastoid suppuration. It often proves to be of inestimable value in detecting the presence of a thrombus in the lateral sinus. The fever in this condition is nearly always of an intermittent or remittent type, and, if it is recorded at long intervals, a sudden rise, with a correspondingly sudden fall, may escape notice. Such a temperature is commonly accompanied by chills or rigors, often some disturbance of consciousness, intraocular changes, such as neuritis or neuroretinitis, and at times by paralysis of some or all of the nerves passing through the cavernous sinus to the eye muscles.

After the character of the temperature, perhaps the most valuable diagnostic sign of extension to the sinus is found in compressing the jugulars on their respective sides. On the unaffected side, it will be found to fill rapidly and to swell to much more than its natural size, whereas that of the diseased side will remain collapsed.

In concluding, the most valuable information that we can obtain is from the tenderness upon deep pressure, and the sagging of the postero-superior wall of the canal, which are sufficient evidence, and we should never wait for redness and œdema behind the

auricle to occur before making a positive diagnosis. As has been stated, this symptom is perhaps as frequently found with inflammatory diseases of the canal only, and it is the rule rather than the exception for the most violent cases of mastoid inflammation to occur without any external manifestation of inflammation.

The exploratory operation, which many good authorities advise, will seldom be required when we are sufficiently careful in examination.

It is necessary to divide the cases into two classes for treatment—viz., those complicating acute, and those complicating chronic suppuration in the middle ear.

In the first class of cases the immediate indication is to establish a thorough drainage through the canal. A free incision through the drum extending on to the posterior wall of the canal, known as the internal Wilds incision, should be promptly made. It may be necessary to repeat this each day for several days owing to the rapid union which sometimes takes place. The canal should be syringed frequently—say every two hours—with an antiseptic solution, preferably the bichloride of mercury 1 :5000 or thereabouts, used as hot as can be borne. Constant ice applications should be kept in contact with the mastoid bone. The most convenient means for doing this is found in the use of the Leiter coil, but in the absence of this the ordinary ice bag may be used. The length of time that this method of treatment should be kept up, marks the difference in the treatment of the two classes of cases, acute and chronic. According to many good authorities two days is deemed sufficient time for the trial of ice applications before deciding upon an operation.

On the other hand, it is astonishing to see how completely they sometimes recover after five or six days of cold applications. The application of leeches behind the ear is never advantageous, and necessarily adds to the tenderness at this point, thereby possibly obscuring diagnosis.

The employment of hot compressed or of remedies producing counter-irritation, etc., are never justifiable.

The external Wilds incision of the overlying soft parts deserves no mention, except to say that it never serves a useful purpose.

Cases which do not yield to the above-mentioned treatment have no other alternative except that of the radical mastoid operation, which comprises the complete removal of the mastoid process.

The usual surgical preparations should be made, and before the field of operation is finally cleansed for the primary incision, it is wise in nearly all cases to again thoroughly incise the drum and canal, after which it should be thoroughly cleansed and packed with gauze.

The primary incision should be made from below upward, and should extend from just below the tip of the mastoid process to a point just above the attachment of the auricle. The incision should run parallel to the outer border of the auricle, and should be located about one-fourth of an inch from its attachment. When the incision is made further backward, the displacement of the auricle is greater and more noticeable after healing is complete. The periosteal elevator is then used, and the anterior flap pushed forward sufficiently to expose the upper and posterior margin of the bony meatus. The posterior flap should be elevated sufficiently to acquire the necessary space to completely expose the mastoid prominence. It is impossible to separate the sterno-mastoid muscle from the underlying bony structure with the periosteal elevator. The apex can be satisfactorily exposed with the blunt curved scissors. By a series of cuts the tendinous insertion of the muscle should be dissected up until the finger can be passed around the tip and into the digastric fossa. This allows the exposure of the entire mastoid process, and the next step is to explore the antrum, which should be done in all cases regardless of where perforation in the bone exists. The point at which the outer table should be entered is at the apex of a triangle formed by two lines which are drawn tangent to the superior and posterior border of the bony canal respectively. This triangle embraces the ever-present supramental spine, and has been termed the supramental triangle.

If the opening in the bone is carried higher than the line drawn parallel to the upper border of the canal, the middle fossa of the skull will be entered before the antrum is reached. The danger to be encountered in working backward from this point is injury to the lateral sinus.

The distance at which the sinus lies from the posterior wall varies greatly. Its average distance is about five-eighths of an inch. It is not infrequently found very much closer, and it is therefore advisable to perforate the cortex as close to the posterior wall as possible. Owing to the variation in the structure and size of the mastoid process, it may be necessary to remove more bone before the antrum can be reached. It should be remembered, however, that the deepest point should be within the above-described triangle. When perforation in the outer table has occurred spon-

taneously the opening may be enlarged and the antrum reached by the employment of the sharp ring curette. In the majority of cases we find the cortex intact. Various methods have been employed to break through the outer table. None are as efficient, it seems to me, as the chisel or gouge, and after entering the pneumatic cells, the safest instruments are the rongeur forceps and curettes. In using the chisel, the instrument should be applied nearly horizontal, it should be directed downward and forward and but a thin layer of bone removed at a time. The larger chisel should be used first, after which a smaller gouge may be used to deepen the opening towards the antrum. The average distance of the antrum from the surface is about one-half inch, but in the event that it is deeper or the landmarks become confused, the posterior and superior walls of the canal may be broken down, the tympanic cavity entered and the antrum found by working backward from this point along the canal which leads to the antrum. Perfect safety can be claimed for this procedure. When the antrum can be found by leaving the posterior wall intact a probe can be passed over into the middle ear. This cavity should be carefully examined for destructive processes, since it is not infrequent to find the roof of the tympanic cavity perforated and a direct communication extending into the middle fossa of the skull. If, however, the probe meets with a firm bony resistance at all points, the operation need extend no further in this direction. The next step should be the removal of the entire mastoid process as far back as any pneumatic spaces exist, and particularly the tip of the bone. For this purpose the chisels and gouges should be discarded, the only instruments used being the rongeur forceps and curettes. By far the larger number of injuries done to the lateral sinus have been done by chisels. It can be readily understood that the wall of the vessel will give away from the forceps and curettes, whereas the chisel would plunge directly into it. The tip of the bone should invariably be removed even though it be apparently healthy. Often pus and granulation tissue are found in the extreme tip when the cells above have a normal appearance. In removing this portion of the bone with the rongeur, it will be found that even though the tendinous insertion of the sterno-mastoid muscle has been dissected away, there will be remaining fibres which will be caught more or less in each grasp of the forceps. After each "bite" of the forceps at the bone, these fibres should be cut with curved scissors, since traction upon them causes injury to the muscle and other tissues in the neck. Such an injury almost invariably causes the patient days of pain afterwards, and it fixes the head in such a position that it is impossible to make the patient comfortable.

The importance of removing the tip cannot be too strongly emphasized. In the first place it is never wise to consider it sound in any case of mastoiditis; and secondly, it remains as a cup-shaped bony cavity which serves as a reservoir for inflammatory products which often creates a demand for a secondary operation before the primary wound becomes healed; and lastly, if it is for the time being sound and the wound heals perfectly it remains as a prominence covered by a scar which passes over it and dips into the depression caused by the removal of bone above. Such a cicatrix is much more likely to be irritated situated upon a projection of bone than if such were not allowed to remain, and as a matter of fact, no other cause can be assigned for many cases of recurrent mastoid inflammation. After the tip has been completely removed all of the pneumatic spaces posteriorly should be explored, and finally the canal leading to the antrum should be thoroughly freed of any softened bone and thorough drainage established through this from the tympanum. When this is sufficiently done it is not necessary to accomplish a thorough drainage, *i. e.*, from the canal into the wound posteriorly. Nothing is gained by such drainage and much harm may be done in the effort to accomplish it.

The accident which occurs at the hands of every operator sooner or later is injury to the lateral sinus. Exposing the meninges in the middle fossa, or over the sinus in the posterior fossa, cannot be regarded of any moment, as it is never followed by any untoward results. It is claimed by many authorities that the observance of proper antiseptic precautions precludes the possibility of danger from perforation of the sinus. It does not seem reasonable that we have a right to say that the field of operation can be made clean when we have already encountered pus in the cells and in the tympanic cavity.

Hemorrhage from the sinus is easily controlled by pressure alone, and it complicates the progress of the operations very little if sufficient bone has been removed to allow the finger of an assistant to make pressure with gauze while the operator continues his work. The bleeding usually ceases in a few minutes.

In packing the wound it is necessary to carry the gauze well into the antrum in order that the secretion from the middle ear may drain posteriorly. The packing from

the canal should then be removed and replaced by fresh gauze. The cavity in the bone should be tightly packed, but the soft parts should be allowed to resume their normal position to prevent subsequent deformity. In young children, however, it is wise to pack the entire wound to facilitate later dressings. The first dressing may remain from four to six days, unless a rise of temperature indicates its removal. Usually the bandage may be dispensed with after two to three weeks and a pad may be worn to hold the dressings in place.

The treatment of subsequent otorrhea should not be neglected. In most cases this does not last longer than a few days.

Treatment of Tuberculosis.

Tuberculosis has held first place on the program of the different society meetings of the year. An excellent paper was read before the Alabama State Medical Asssociation by Dr. J. F. Peavy, of Asheville reported in the Journal of the A. M. A., in which electricity, as an ozonizing agent, is developed in quite a plausible way. The Static machine used by the author is an eight-plate, the patient placed on the insulated stool connected with the positive side of the machine while the negative terminal is formed by a spray electrode having some forty-five brass points mounted on a stand, but insulated from it by a hard rubber handle. The electrode is adjusted so that the cluster of points is about two inches from the patient's mouth and nose. When the machine is operated, a strong electric wind is generated by the discharge from the points. This electric wind is rich in ozone, as is quite apparent from its odor, and is also shown by chemic tests. The ozone is due to raising the electric tension of the oxygen to the point of dissociating the atoms of some of its molecules. In this way the oxygen, already electronegative, is rendered more intensely so and its activity thereby exalted. At the same time the patient, forming as he does, the positive electrode, is positively charged, thus exalting the affinity of his fluids and tissues for the electronegative oxygen. The patient is simply required to breathe and we have the conditions for rapid and effective oxidation. The frequency and duration of the inhalations are matters to be determined by the conditions present in individual instances. The quality of ozone developed by the process varies somewhat with atmospheric conditions. Fortunately, most ozone is developed in damp, murky weather, when it is most needed. In fine weather, it is easier to get up tension in the machine and possible to get a more violent disruptive discharge, but the ozoning action is less. There is more ozone normally present in the atmosphere in fine weather, but this means simply that, like any form of electric tension, the ozonic condition of oxygen is more persistent in fine weather.

Oxygen, as you know, is nature's great depurative agent both in nature at large aud in the animal economy as well. Under the more active form in which it is furnished by this procees. we certainly have the right to claim that it facilitates the removal of the products of waste, as well as the noxious materials resulting from impaired function and diseased processes in the lungs. Ozone destroys all known germs. The claim is not here set forth that it will penetrate deeply into the tubercular masses and destroy all the germs, but it is a fair claim that it will destroy exposed bacilli and do much by direct action to inhibit their development. It will do much to destroy devitalized masses, forestalling to a degree the development and absorption of toxins. It is, however, upon the property which this high tension oxygen has of stimulating metabolism, thus promoting nutrition and cellular vigor and resistance, that our highest hopes are based. The cells in this way are made more self-protective and the process is certainly more physiologic than any protection afforded by the introduction of toxins into the circulation.

No fact is better attested than that spontaneous recovery from phthisis sometimes takes place. This can only occur through the vital resistance of the organism itself, manifested either as a local cell resistance directly exerted on the invading microbes or as a capacity to generate antitoxins,neutralizing the toxic products of germ activity and inhibiting the development of the germs themselves. At any rate, the recovery is due to the reactive vigor of the cell, and this in turn is the product of nutrition and oxidation.

Attention to dietary is necessary to insure a due amount and proportion of the different elements necessary for the nutrition of the body. It is especially important that the diet should contain a sufficient amount of proteids. It is through the increased capacity to appropriate these tissue builders that the restoration of structure and function takes place. In conditions of suboxidation it is these azotized materials which cause the most mischief on account of imperfect assimilation and conversion, thus not only failing to support normal tissue change but poisoning the system by the generation of toxins. The increased oxidation secured by this method tends to clear

the system of the toxic products of disturbed metabolism and promote the normal conversion of these active agents of tissue renewal.

The intention of the paper is to place the method on a rational basis and to develop, to some extent, its physiologic and physical implications. The author is quite willing to let the merits of the method be determined by practical results. Cases now under treatment will be reported in due course of time.

Tuberculosis and Milk.

In the course of the recent tuberculosis crusade it has been alleged on very high authority that tabes mesenterica and tuberculous meningitis are increasing in infants as the direct results of an infected milk supply. This theory explains the origin of tuberculosis in infants by the assumption that the tubercle bacilli are conveyed to the intestines by milk from tuberculous cows. As the result of pathological investigation some doubt has been thrown on this plausible theory by various writers. Dr. Walter Carr; according to the Hospital, June 24, 1899, has shown from the post-mortem records at the Victoria Hospital for children that tabes mesenterica is rare in children under two years of age, and almost unknown in those under one year of age. He holds that the primary source of infection is much more frequently through the respiratory than through the alimentary tract. From an examination of the post-mortem records at Paddington Green Children's Hospital, Dr. Leonard Guthrie shows that thoracic tuberculosis was most prominent and probably primary in 54.5 per cent. of the cases, and abdominal phthisis in 24.5 per cent. He points out that, in addition to direct entry of the bacilli into the lungs through the air passages, they may reach the thoracic glands through the pharynx, tonsils, and œsophagus above, and through the lymphatics of the intestines and the abdominal glands below. Confirmation of these views comes from America. Dr. Bovaird concludes from his experience in the autopsy room of the New York Foundling Hospital that the primary lesion of tuberculosis in children is regularly found in the bronchial lymph glands or in the lungs. Combining his statistics with those of Northrup on the same subject, he shows that, out of a total of 220 autopsies, in 148 cases infection was by the respiratory tract, in 3 cases infection was by the mesentric lymph glands, and in 34 cases infection was not determined. He further points out that the early manifestations of tuberculosis in children are extremely indefinite and uncertain, and tuberculosis of the bronchial glands cannot be diagnosed with certainty. He agrees with Dr. Guthrie in thinking that this latent bronchial tuberculosis is frequently aroused and disseminated by the invasion of another disease, such as measles. In view of these pathological facts, too much stress must not be laid on the death returns of the Registrar-General as proving that tabes mesenterica from tuberculous milk is a common and fatal malady in infancy.

A New Society.

The American Proctological Society was organized in Columbus, last month.

Dr. Wm. M. Beach, of Pittsburg, and Dr. Thos. C. Martin, of Cleveland, were the prime movers in the organization according to the Louisville Medical Monthly.

The second annual meeting will be held at Washington, D. C., in May, 1900. The officers are as follows:

President—Dr. Joseph M. Mathews, of Louisville, Ky., the retiring President of the American Medical Association.

Vice-President—Dr. James F. Tuttle, of New York city.

Secretary-Treasurer—Dr. William M. Beach, Pittsburg.

Board of Commissions—Dr. Samuel T. Earle, Baltimore, Md.; Dr. A. Bennett Cooke, Nashville, Tenn.; Dr. J. B. Pennington, Chicago.

Neuroses of the Menopause.

The cessation of the menstrual function is attended with quite a variety of symptoms referable almost entirely to the nervous system and oftentimes the ability of the physician is taxed to the uttermost for the successful treatment of such cases.

Dr. Haslett, in Treatment, divides these affections into four groups as follows:

I. Purely functional disorders.
II. Purely organic disorders.
III. Purely mental disorders.
IV. A combination of any of these.

He found that mental and nervous trouble was more likely to occur when the menopause came on late in life. Two-thirds of the cases are married or widows. Bad family history and previous attacks of nervous trouble are prominent agents in the cause. The various symptoms, as heat flushes, vertigo, headache and fainting, perversity, irritability, impatience, suspicion, enfeeblement of the memory and will, great depression, constant introspection, paralysis of energy and volition, came on with the decline of the functional activity of the generative organs.

Delusions and hallucinations may also appear later. As a complication look out for alcohol or drug habit. The purely mental type of climacteric disease known as "old maid's insanity," is very incurable and likely to get a lot of innocent people into trouble.

Pure hysteria is very uncommon at this time, although there may be ovarian disease.

Most of the cases recover in nine months.

Treatment. Change of scene and environment, open air, avoid hypnotics as long as possible, artificial feeding in some cases, 10 eggs with 2 quarts of milk daily, massage, Weir-Mitchell treatment.

Care as to dress, first sign of returning health.

Some Thoughts on Diptheria.

In the Medical Mirror for June, Dr. Love has a most excellent paper on Diptheria.

He recalls the time when diptheria was dreaded more than probably any other disease incident to childhood. The most definite progress was made in the management of diptheria when the real cause was discovered. The Klebs-Lœffler bacillus, as the established cause of diptheria, gave us our first inspiration for its proper cure along the lines of disinfection. The work of Behring, Roux and others evolved the antidote, and there can be no question now as to the fact that antitoxine is a real cure for diptheria, and a probable preventive if used at the right time and in the right way. Realizing the fact that our profession almost invariably has been too readily carried away these latter years by enthusiasm in favor of new thoughts, that we be extra conservative in weighing the evidence for and against antitoxine. As each year has passed the evidence has grown stronger that antitoxine is practically the beginning of a revolution in therapy. The entire scientific world has now accepted the antitoxine treatment of diptheria. Of course there are a few doubting Thomases in the professional world, but these are so few as not to be worthy of much consideration.

The strongest evidence which I have personally secured in favor of this remedy has been in cases of tracheal diptheria which have come under my care. These, as you know, are the purest forms of diptheria; they are not mixed infections. The absence of vascularity in the tracheal tissues is unfavorable to the mixed infection and to the blood-poisoning, which is so frequent in pharyngeal and particularly nasal diptheria. Under antitoxine I have been able to save more than 75 per cent. of my cases of tracheal diptheria, even those requiring tracheotomy or intubation, and as all know under the old regime this could not have been done.

For many years previous to the introduction of antitoxine it had been my custom to look upon every case of sore throat as a possible case of diptheria, advising invariably complete isolation in all cases.

I believe on general principles in the management of all diseases, and particularly the infections, that we should give close attention to elimination, the secretions and excretions, and we have no better stimulant to the excretory organs, we have no better eliminative agents than the benzoate of soda and the bi-chloride of mercury. I believe, further, that whether we administer antitoxine or not, whether we have a case of diptheria or not, that in every case of sore throat we should use, not only for the comfort of our patient, but for disinfection, with a view to the benefit of our patient and the protection of others, remedies which accomplish this purpose. A point which I could particularly emphasize is, that we in our devotion to the microscope and test tube, are too frequently depending upon these agents for diagnostic purposes rather than clinical evidence. I think we should have a definite, clinical picture of diptheria.

It is our duty to manage every case of sore throat as a possible diptheria, but do not call a case diptheria unless all the evidence justifies it.

When we recall the fact that bacteriological records prove that a large number of healthy mouths and throats contain the Klebs-Lœffler bacillus at any and all times, we can readily see how easy it is to make a diagnosis of diptheria in a simple case of sore throat. Is it not true that probably the majority of these cases are now reported as diptheria? I am confident that such is the fact. I have studied carefully the literature and the views of other men, and am convinced that administration of antitoxine is practically harmless if used simply as a preventive, and that there is no more reason to be opposed to its use for this purpose than to oppose vaccination. Let us have a care in the use of antitoxine, placing it where it belongs when we use it as a preventive measure; give it the due credit of prevention but not of cure, when there is a question of diagnosis involved.

After many years of careful study of the question, thoroughly weighing all of the literature of the world and my own experience (though in the beginning I was extra conservative), I am fully convinced that in the diptheria antitoxine, we have almost as definite and valuable a remedial agent

for diptheria as we had previously in vaccination for small pox, but the interests of science and humanity will be subserved if we are extra careful in the recording of our cases and the application of this remedy.

University College of Medicine.

The University College of Medicine of Richmond, Virginia, has had a remarkable growth and development. During the past six years it has had a greater annual increase of students than any institution in the South, last year having had 310 students in Medicine, Dentistry, and Pharmacy.

The record of its graduates before the Examining Boards of the different States has likewise been unusually remarkable,the reports this summer showing that forty-two out of forty-three graduates passed the Virginia Board, and that out of eighteen applicants before the last North Carolina Board, all passed, thus making the unusual record of 100%. The records before the Georgia, New Jersey and Delaware Boards, etc., have also been perfect.

The 88 page Catalogue, which is sent on application, gives detailed information.

Treatment in the Early Stages of Acute Appendicitis by Saline Aperients.

Dr. E. Maylard does not believe in operation in the early acute stage of this disease as a routine procedure (Treatment, April 13th, 1899). His experience would seem to justify his antagonism to surgical interference. Without losing sight of that grave contingency, perforative peritonitis, the author remarks that, considering the frequency of attacks of appendicitis, perforation is really comparatively rare.

The treatment advocated by Dr. Maylard is briefly as follows:

1. Copious warm soap and water enemata should be given, with the object of evacuating the lower bowel.

2. The hourly administration, until the bowels move freely, of small teaspoonfuls of sulphate of magnesia dissolved in about two wineglassfuls of warm water. It usually takes from six to eight doses before the bowels commence to move.

3. Apply hot linseed poultices to the right iliac region for the relief of pain. (Opium should be avoided on account of its tendency to mask symptoms and confine the bowels.)

4. Feed on whey, chicken tea, meat jellies, etc. Milk only encourages constipation.

Since the author has systematically adopted this mode of treatment at an early stage in the disease, he has not had a case in which subsidence of symptoms has not soon set in. This does not necessarily imply cure.

The sulphate of magnesia is given to stimulate the intestinal glands to excessive action, and procure a copious alvine secretion. The depletory effect thus produced in the immediate neighbourhood of an inflammatory focus must, says the author, very materially lesson the congested condition of the vessels of the part and relieve tension.

John N. Nisbet, M. D.

One by one, the gentlemen of the old school, are passing away.

Dr. Nisbet was born in 1823, and for the past fifty years he had been active in the practice of his profession in Waxhaw and the surrounding country.

His were open ears and ready feet to every call of suffering and distress and now he has gone to stand before Him who said "Inasmuch as ye did it unto the least of these."

Dr. Nisbet leaves three sons who are physicians, Dr. J. Douglas of New York City, Dr. W. O. and Dr. Verner of Waxhaw. They have the priceless heritage of their father's life and work.

New Operation for Hernia.

There is some fault to find with the usua operation for hernia. Atrophy of the testicle sometimes follows Bassini's operation, and we have recurrences after the Czerny and the Macewan. Numerous attempts have been made to render these operations safe and certain, but total obliteration is hard to secure.

However, Dr. Emory Lamphear, in the Alkaloidal Clinic, gives the technique of a new operation which is not only safe but absolutely sure. The method is as follows:

A large flap is turned back, exposing the h ɛ nial sac and the inguinal canal in their en tirety. The sac is then carefully dissected out, opened and contents reduced. At this stage the opening into the abdomen is closed with gauze and the spermatic cord and the testicle lifted out of their natural position, and enveloped in iodoform gauze. From the hernial sac (parietal peritoneum) there is now made a pouch. or artificial tunica vaginalis testis, into which the testicle and cord are passed and enclosed with catgut sutures in such way that not too much pressure is possible upon the cord; the whole pushed into the abdominal cavity, and anchored by a few catgut sutures.

The cut in the peritoneum is next closed; next the opening into the scrotum sutured; then each muscular layer of the abdominal wall carefully sutured, completely obliterating the canal—just as is done in operating for inguinal hernia in the female.

The only possible danger, as mentioned by Dr. Lamphear, is suppurative inflammation of the testicle, or epididymis, which is so extremely rare, that it may be disregarded.

Quarantine Regulations to Insure Safe Scientific Passenger Traffic from an Infected Locality to a Non-infected One.

Dr. Edmond Souchon (New Orleans Medical and Surgical Journal) points out the following rules in which passenger traffic can be conducted with safety in cases of yellow fever, &c.:

1. Persons from an infected locality wishing to go to non-infected localities shall send to the railroad depot, eight hours previous to the departure of the train, a suit of clothes and their baggage, which shall be disinfected by the officers of the United States Marine Hospital Service.

2. They shall be present at the railroad depot one hour before the hour of departure to change the clothes they have on for the suit disinfected under the supervision of the said officers.

3. They shall be given a certificate to that effect.

4. They shall then be admitted to a seat in a disinfected coach.

5. The baggage shall be checked and placed in a disinfected baggage car.

6. The health officer of the locality to which they are going shall be informed of their coming by telegraph.

7. Upon their arrival at the point of destination they shall be met by the health officer or shall at once report to him.

8. They shall present themselves to him for inspection in the morning and in the evening for five consecutive days.

9. A bond may be required of them to insure their appearance or they may be placed under the surveillance of a special officer.

10. If they have been well all that time they will then be free to go anywhere and everywhere.

11. Should they present any symptom of fever they shall at once be isolated and be treated scientifically to prevent infection.

12. By thorough disinfection of all that comes from the patient as soon as it leaves him or has touched him, the disease will not affect any one else around him nor infect the household effects nor the premises.

13. As soon as the patient has recovered he must be disinfected, and, also, all his effects.

14. Also the nurse.

15. Also persons and things which have been in room and the house.

16. Also the premises, yard privies, and gutters.

17. All this must be done according to the *Instructions to the Medical Inspectors.*

18. Non-immune persons who have been in the house or on the premises must also be kept under observation for five days after the disinfection of their clothing and effects.

Summer Complaints of Infants, Children and Adults.

The following prescription has been used for some time by a prominent Philadelphia physician, who states that he considers it almost a specific in Summer Complaints.

Liquor Bismuth, Glyco-Thymoline (Kress) of each two ounces, mix. Dose: a teaspoonful as often as may be required.

Glyco-Thymoline (Kress) may be combined with Bismuth, Tr. Opii. Camph. Tr. Opii, Mistura Creta, Syr. Rhei. Arom., etc.

Administered internally Glyco-Thymoline (Kress) acts as a carminative, antiseptic, alterative, stimulant, antacid and meets many of the requirements of the physician during the summer months.

Glyco-Thymoline (Kress), diluted one ounce to the quart of water, use as a sponge bath, stimulates the skin secretions.

An enema of Glyco-Thymoline (Kress), one ounce to the pint, will be found most valuable.

The Eclectic Medical Institute.

Eclectic medicine does not seem to be very popular in North Carolina.

In looking over a catalogue of the *Eclectic Medical Institute* of Cincinnati, there is not the name of a single man from this State.

The fact is not mentioned as indicating any lack of progress on the part of our young men, but rather as showing that when it comes to real first-class, regular doctors, North Carolina will be found well up towards the front of the procession. We notice in the catalogue that one must study medicine four years and take four annual courses of lectures of at least six months each before practicing in California, S. Dakota, Nebraska, Montana, Missouri, Indiana, Ohio, Wisconsin or Colorado. State examinations are required in 25 States.

Surgery of the Female Generative Organs.

The pendulum has been on the backward swing in regard to the surgical treatment of the various diseases of the organs of generation in the female, and conservatism is likely to go to the same extreme of rashness and lack of common sense. Dr. Geo. Ben. Johnston, in the Richmond Journal of Practice, calls attention to some of the limitations of conservatism. He well says that, conservatism must accomplish all that radicalism can and more in restoring the integrity of parts without sacrifice. Failing in this, or when extended beyond safe and legitimate bounds, conservatism may become rank radicalism. It is desirable, therefore, to fix its limits as accurately as possible, seeing how variable are the conditions involving its application. Every discreet surgeon enters the pelvic cavity prepared to alter his preconceived plan if unexpected conditions arise. In the selection of a final method in such cases as admit of conservatism he will be governed by (1) the age of the woman, (2) the nature of the malady, (3) the extent of the lesion and the existence of complex pathological states, (4) the patient's physical condition, (5) the probable necessity of a second grave operation.

Age of the Patient.—To a woman during the child-bearing period the preservation of the uterus and at least one tube and ovary (or even a portion of the latter) should be accomplished if it can be safely done. Nothing but positive necessity can justify the unsexing of such women. They constitute the peculiar charge of conservative pelvic surgery, and greater latitude is allowed on account of the importance, for every reason, of their generative organs. Here such measures as carry with them the likelihood of failure and even some risk to life may be resorted to in their behalf.

To one approaching the menopause the argument in favor of conservatism is less forcible, but even here it is most desirable to avoid the sudden cessation of the menstrual flow, if it can be avoided. To one past the menopause the ovary alone seems (on account of its internal secretion) to be important, save for the minor consideration of the mechanical advantage of preserving the uterus.

The Nature of the Malady.—It is obvious that no attempt at conservatism should be made in cases of malignant neoplasms, tuberculosis or suppurative diseases of the tubes or ovaries due to the more malignant pyogenic organisms.

The Extent of the Lesion and the Existence of Complex Pathological States.—Even where most extensive involvement of an organ exists there may remain a small unaffected portion whose preservation would be desirable, but the difficulties connected with identifying and isolating such a healthy portion in the presence of extensive disease are great, and often determine in favor of radical procedure. Not infrequently upon exploration of the pelvis it is found that the condition for which operation was undertaken is so complicated by other pathological states that the mode of procedure originally contemplated must be abandoned for more radical measures. Thus uterine fibroids may give rise to conditions of the tubes and ovaries necessitating their removal. In such a case little would be gained by saving, at the expense of a tedious operation, a uterus which would at best be a functionless organ.

The Patient's Physical Condition.—Conservative measures, as a rule, involve more extensive manipulations than do radical procedures, hence the latter must at times be adopted where the local conditions would suggest conservatism; but where the patient would be unable to stand the prolonged anesthesia and the shock incident to tedious operative measures.

In considering the desirability of conservatism in any given case account must be taken of the relative importance of ovaries, uterus, and tubes, Of these structures the ovary occupies the first place, for the reason that its removal renders the uterus and tubes functionless, while, on the other hand, removal of the latter leaves the ovary robbed of its prime function, but serving other useful ends. Next in importance stands the uterus, but only, so far as we know, where at least a portion of an ovary can also be preserved. Efforts to preserve tubes alone are not desirable, since these structures are functionless in the absence of ovaries and uterus.

Though only within very recent years has it been conclusively demonstrated that the internal secretion of the ovary is of great importance in the female economy, and strongly suggested (though not proved) that the function of menstruation is more than a monthly inconvenience, still not even those most convincing arguments against the unnecessary removal of the organs concerned are stronger pleas for conservatism than is the moral question involved and the often lamentable mental condition following the unsexing of a woman. This latter consideration is more powerful than ordinarily considered, for women are naturally loth to express themselves freely in matters bearing on sexual relations.

The following indications call for the removal of the ovary:

Hematoma, graafian cysts, abscess, dermoids.

The uterine tubes should be amputated in:

Extrauterine pregnancy, kinks and strictures, if these are numerous, decided and accompanied by dense adhesions, hydrosalpinx of either the follicular or flowing variety, pyosalpinx in every instance where the infection is other than gonococcal, and in these if the abscess cavity is large and the tube walls much impaired.

The Uterus, as Regards Fibroids.—Myomectomy was a great advance in the treatment of fibroids. It seems horrible to sacrifice an otherwise normal uterus on account of the presence of removable fibroids, yet unnecessary hysterectomies continue.

Perhaps the most difficult problem in determining between conservatism and radicalism presents itself when the surgeon comes to deal with fibroids. There are two conditions, which, if existing, lead to a speedy conclusion. The presence of a limited number of only suberous tumors at once indicates the removal of the tumors only. On the other hand, if the tumors are deep-seated, or embrace the bulk of the uterus, or if they are very large, nothing is to be done but hystero-myomectomy.

The doubtful cases are those in which the tumors are interstitial and small. Even here, when few and well defined, myomectomy may be undertaken with reasonable hope of success.

The difficulty of distinguishing *every* nodule is very great, and when the number is large the numerous and deep incisions required for their extirpation render the operation for their complete removal tedious, dangerous and uncertain. I therefore contend that in every case at all doubtful, *except when they occur in young women*, hysterectomy is preferable to incomplete myomectomy. Overlooking and leaving a single nodule may destroy the permanent effect of the operation, and require a second of a more thorough kind.

The presence of complications, such as the coexistence of pathological conditions in two or more organs, usually places the case beyond conservatism, as may the existence of disease in remote organs.

While conservatism properly applied is both wise and humane, to be tolerated it must accomplish what it seeks to do. In its application the soundest judgment, the ripest experience and consummate skill must be present. The difficulties which encompass it are great.

1. It often entails prolonged effort, thus increasing the liability to shock.

2. Extensive manipulations which denude the perineum, thereby increasing the risk of infection and setting up post-operative adhesions, and, may be, intestinal obstruction. By dealing with open pus cavities, grave danger of infection occurs. It often requires many wounds, which mean much hemorrhage, numerous cavities to be repaired, foreign suture material left behind to accomplish these repairs, the possible formation of blood clots, which furnish foci for infection, a likelihood of secondary hemorrhage, perhaps painful scars, and almost certainly, when many points have been subjected to operation, post-operative adhesions.

3. The bruising of tissues incident to harsh methods of controlling hemorrhage, thereby impairing the recuperative powers, and thus endangering the success of the undertaking.

4. Finally, the ever-present prospect of a second operation.

Deep and Surface Temperature of the Human Body.

M. S. Pembrey and B. A. Nicol (Journal of Physiology) give the results of a large number of observations made upon the deep and surface temperature of healthy persons under various conditions. The following are amongst the most important results obtained:

The average rectal temperature for the twenty-four hours is 98·2 deg. F.; that of the urine is 98.6 deg. F.

The average for the time of activity (7 A. M. to 11 P. M.) is 98.5 deg. in the case of the rectum, 99.1 deg. in the urine; the respective values for the period of rest (11 P. M. to 7 A. M.) are 97.4 deg. and 97.6 deg.

The maximum daily temperature is reached about 6 P. M., the minimum about 2 A.M,

Muscular exercise produces a marked rise in the internal temperature: mental work has very little influence, while rest and sleep cause a decided fall. The latter, indeed, is the most important factor in producing the fall in the curve of daily temperature.

Food produces a slight rise in temperature.

The temperature of the rectum shows an average excess of 1.1 deg. F. over that of the mouth. The latter is not an exact measure of the deep temperature; it is unreliable, especially after severe exercise or in cold weather.

The surface temperature of the skin of the parts covered by the clothing is fairly constant.

The Regulation of Nutrition by Drinking.

It is not altogether what we eat that keeps us alive and well. Even the physical man can not "live by bread alone," and so we must drink, in fact, we are driven to drink and there is no escape. And the only proper and natural thing to drink is water, some cold, some hot, but never, if you value your nutrition, any thing but water. The editor of Modern Medicine does not think much of hot water because of its debilitating effect upon the stomach when taken in large quantities, but in moderation, forty or fifty minutes before meals, it is a good remedy for gastric catarrh.

The editor goes on to say that the physiological theories of Van der Hoff, Pfeiffer, and Blogden have thrown considerable light upon the metabolic and catabolic processes of the body. They have shown, for example, that, if not absolutely ruled by laws relating to osmotic tension, the absorption of digestive products and the exchange which takes place in the tissues present phenomena which certainly conform to these laws in a remarkable way; and they have led to some important results in the development of new diagnostic measures and in calling attention to important therapeutic indications. This is especially true as regards disorders of the kidneys. The investigations referred to have shown that ordinarily the value of the coefficient of osmotic tension is nearly three times as great in the urine as in the blood, and this relation remains practically uniform; while in renal disease this relation is reduced to less than one-half the normal figure, and the osmotic tension of the urine barely equals that of the blood; in fact, occasionally falls below it.

Korganyi has made a careful study of the factors which enter into the relation of osmotic tension in the body, and has shown the necessity for the maintenance of the osmotic tension of the blood at the normal standard. According to this author, the kidneys, intestines, alimentation, respiration, skin, and the red blood-corpuscles form a vital circle of processes which are continually draining the osmotic tension of the blood toward that of the lymph, and the lymph toward the intercellular fluid; and by this means regulate not only nutrition, but all the processes of secretion and excretion necessary to sustain the body in health.

Without water, it is as impossible for the body long to maintain the normal standard of osmotic tension as for the ancient Israelites or the modern Mexicans to make their sun-dried brick without straw. Water is the one thing whereby tension may be diminished or increased as the vital needs may indicate. Too great tension requires dilution, and more water must be added. Low tension, on the other hand, requires less water, which readily escapes through the skin and kidneys. One of the most important roles played by the kidneys seems to be this very regulation of the osmotic tension of the blood. The kidneys thus become a powerful factor in controlling all the nutritive processes of the body. It thus appears clear that water drinking can not be practised indiscriminately. The amount of water drinking for the system must be regulated by its needs, as shown by the condition of the blood. Unfortunately, we have not as yet any rapid, convenient, and accurate method of determining the osmotic condition of the blood in human beings. A fairly accurate judgment of this condition, however, may be formed from the microscopical condition of the blood and by the chemical or physical examination of the urine. With high osmotic tension the red corpuscles of the blood diminish in size. With low osmotic tension, they increase in size. As before stated, the osmotic tension of the urine is something of an indicator of the state of the blood, as it is an extract of the tissues; but the most accurate method of determining the osmbtic tension of the urine is found to be the determination of its freezing-point. The lower the freezing-point, the higher the osmotic tension. For practical purposes, and until more convenient methods of diagnosis have been perfected, the specific gravity may be taken as an indication of the osmotic tension of the blood. A low specific gravity resulting from renal insufficiency naturally means a high osmotic tension of the blood instead of the opposite ordinary indication.

How these indications may be met is a question of the highest practical importance, as every function of the body depends upon the proper regulation of the osmotic tension of the blood. In both cases one remedy is especially indicated; namely, copious water drinking. The thickened blood must be diluted. The effect of copious water drinking in these cases is exceedingly remarkable. In cases in which the specific gravity of the urine is too high, the natural effect of free water drinking is to lower the specific gravity; while in cases of renal insufficiency there may be observed not infrequently an actual increase of the specific gravity as well as of urine produced, showing an increase in the elimination of excretory products.

Water drinking is equally useful in cases of hepatic insufficiency. The quantity of water taken daily must be carefully regula-

ted by frequent examination of the urine; not only of the morning urine, or that passed immediately upon rising, but the whole quantity of urine passed during twenty-four hours. The quantity of water must vary, of course, according to the weather, the amount of activity, the sort of treatment administered, etc., especially if the patient is being subjected to hydriatic processes whereby the activity of the skin is greatly increased. In water drinking, if properly managed, the physician has certainly at hand one of the most powerful means of regulating all nutritive processes, and one which can be employed with perfect safety. The best time for taking water is ordinarily one hour before eating and three or four hours after eating. It is a good plan for patients to take a glass of water at bed-time and a glassful on rising in the morning, and to divide the quantity during the day as much as possible, so that the stomach may not at any time be over-loaded with liquid. In cases in which a sufficient quantity of water can not be taken by the stomach without inconvenience, the necessary fluid may be received through the colon. In cases of this sort, a small injection of water at the temperature of the body may be administered at bedtime after the patient has retired. By means of a fountain syringe, one or two pints may be slowly introduced into the rectum, care being taken to pass the tube as far into the bowel as possible, and to hold the fountain not higher than two feet above the level of the bed or couch, so that the introduction of the fluid may not be sufficiently rapid to provoke an expulsive action.

Brief Indications for the Use of Different Climates in Different Cases of Tuberculosis.

Herman Weber, at the Berlin Tuberculosis Congress, read a paper on this subject. He said:

It is very difficult to formulate exact rules, partly because tuberculosis occurs in such various forms and such various complications, partly because the constitutions of the affected individuals are very different. In all our medical work we consider the constitution at the same time as the disease, and in tuberculosis we have to do this very particularly, in the apparently slight cases as well as in the severe ones. First of all, we must be clear as to whether we have to do with a strong or weak constitution. This is often difficult to tell at first sight, because a naturally strong person may be so lowered in health—partly by the disease itself, partly by preceding unfavorable conditions—that he may seem to have a weak constitution.

In deciding this matter the family history often helps us, not only as to whether the family is free from tuberculosis or not, but still more as to whether the patient belongs to a long-lived or to a short-lived family. If he belongs to a long-lived family, we may suppose that he possesses a strong constitution, even if other members of his family have died of tuberculosis. If he belongs to a short-lived family, we generally have to deal with an originally weak constitution, even if no member of his family has died of tuberculosis. This kind of hereditary tendency—to a long or to a short life—is very important in regard to prognosis and treatment. Another hereditary tendency, which points to a considerable power of resistance, is that towards gout, which to a certain extent is antagonistic to tuberculosis.

Amongst other circumstances which can guide us in forming an estimate of the power of resistance, the personal history may be mentioned. Those persons who from youth up always feel better, are more energetic, can eat better, and put on weight in warm weather, but in cold weather become less capable of work, generally belong to the class of weak constitutions, whereas those who have always done better in the cold possess stronger constitutions. Patients who from childhood onwards have high fever with every slight illness, and have recovered with difficulty, and who always have moist hands, must generally be reckoned amongst the weak, erethic constitutions—a conclusion which is mostly confirmed by the color of the skin and mucous membranes, the general appearance, and the weak and irritable action of the heart. If we have come to the conclusion that the patient has a weak constitution, we must be guarded in recommending high altitudes and long sea voyages, and give the preference to warm, sunny and sheltered places, such as Beaulieu and Mentone on the Riviera, and Pau; sometimes Madeira and Teneriffe may likewise be recommended. On the other hand, in strong, somewhat torpid constitutions, mountain climates are to be preferred, and occasionally also long sea voyages. In these cases one can do much by keeping them continuously in the open air, by good feeding, and by regulated exercise.

In regard to the following indications the constitution has always to be considered:

In cases with limited disease at one or both apices, without or with an only slight amount of fever, nearly all climates can be made use of, but especially high altitudes

and sea voyages if the constitution is a strong one.

Cases with limited local disease and high fever must be at first treated in their homes or in the neighborhood of their homes.

Cases with extensive disease of one lung or of both lungs, without fever or with only slight fever, are more difficult to advise. In the majority of these cases treatment at an only moderate elevation, or at warm seaside localities, deserve the preference.

In advanced disease with fever long journeys should be avoided, and, if possible, neighboring sheltered health resorts, together with careful supervision, should be recommended.

In progressive tuberculosis with scattered foci in both lungs and much fever, sheltered localities near the patient's home, or the home itself, are probably the best places.

In cases of chronic, slowly progressive phthisis I have seen, on the whole, better results from warm winter resorts, and sometimes from sea voyages.

Quiescent cases with extensive damage or cicatrisation, are generally better off at only slight elevations, such as Meran, or Arco, or Montreux, or Badenweiler, or on the Riviera or in Egypt.

Cases with albuminuria without fever should avoid high altitudes, and select dry places like Egypt or the Riviera.

The complication of moderate diabetes does not exclude the use of high altitudes, but the latter are injurious in cases with advanced diabetes and emaciation. Similarly, high altitudes should be avoided in cases where the tuberculosis is secondary and the diabetes the primary affection.

Chronic cases with much catarrh require places with as little wind as possible, such as Pau and Arcachon. and, in England, Bournemouth; but in the case of young persons places of high elevation with little wind need not be excluded, and are often even to be preferred.

High altitudes are contraindicated in chronic cases with extensive emphysema; these cases require warm winter resorts, such as Madeira, the Canary Islands, Pau, or places with pine woods, like Arcachon and Bournemouth.

When asthma is a complication, in persons whose idiosyncrasies in regard to localities are unknown, no certainty in the choice of climates is possible; but in the majority of relatively young persons high elevations should be preferred, whilst in older persons moderately warm localities at only slight elevations should be selected, such as Grasse (near Cannes), or Montreux, or Locarno, or Meran, or places amidst pine woods (like Arcachon and Bournemouth).

In all climates for the treatment selection of the dwelling house is of great importance; it should get much sun, should be sheltered from winds and free from dust, and should be removed from stagnant water and swamps, and from the impure air of factories and similar drawbacks.

For the prevention of scrofula and tuberculosis all healthy climates can be used, as long as a good diet and plenty of time in the open air can be obtained; but high altitudes and marine climates have advantages —the former rather against pulmonary tuberculosis, the latter (including sea voyages) more against scrofula.

The cure of tuberculosis during the early stages is possible in all healthy climates; some climates, however, have advantages for various cases over the other climates; for instance, notably those of high altitude. But climate by itself without careful medical supervision is generally insufficient. The patient's blind reliance on the climate often leads to errors, to aggravation of the disease, and to death. For the majority of patients, therefore, treatment in sanatoria should be preferred, but for the treatment of the poor it is a necessity. The erection of numerous sanatoria for the people is therefore a national requirement for the cure, the prevention, and extermination of tuberculosis

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The Louisville Monthly Journal of Surgery and Medicine.

This new Journal will be the result of the consolidation of the *Louisville Medical Journal* and the *Louisville Journal of Surgery and Medicine*, which took place July 1st.

Dr. J. M. Mathews will be chief editor and he will be ably assisted by Drs. H. Horace Grant, A. M. Cartledge and Henry E. Tuley. Dr. Grant will be Business Editor, and Dr. Tuley, Managing Editor.

The Journal announces itself the organ of the profession of the State of Kentucky and of the South, but no mention was made of the West and North and East. As the office is self-appointive, there is no reason why it should not be the organ of the profession in the United States, and in Canada, Cuba, England, the Transvaal, Germany, Russia, and the Canary Islands. Later on it could be made to include China, Hawaii, Borneo, Argentine Republic, Denmark, Porto Rico, and the Klondike.

Perhaps it is best not to spread it too thin as it might not give a taste. Parties in the procession should not drive ahead of the band wagon, though they may have some fresh paint on the dash-board.

Railway Accidents.

The eleventh statistical report of the Inter-State Commerce Commission gives some very interesting information in regard to railway accidents.

The total number of casualties to persons on account of railway accidents during the year ending June 30, 1898, was 47,741. The aggregate number of persons killed as a result of railway accidents during the year was 6,859, and the number injured was 40,882. Of railway employee, 1,958 were killed and 31,761 were injured during the year covered by this report. With respect to the three general classes of employees, these casualties were divided as follows:

Trainmen, 1,141 killed. 15,645 injured; switchmen,, flagmen, and watermen, 242 killed, 2,677 injured; other employee, 575 killed, 13,439 injured. The casualties to employees resulting from coupling and uncoupling cars were. persons killed, 279; injured, 6,988. The corresponding figures for the preceding year were, killed, 214; injured, 6,283.

The casualties from coupling and uncoupling cars are assigned as follows:

Trainmen, killed, 182, injured, 5,290; switchmen, flagmen, and watchmen, killed, 90, injured, 1,486 other employees, killed, 7, injured, 212. The casualties resulting from falling from trains and engines are assigned as follows: Trainmen, killed, 356, injured, 2,979; switchmen, flagmen, and watchmen, killed, 50, injured, 359; other employees, killed, 67, injured, 521. The casualties to the same three groups of employees caused by collisions and derailments were as follows: Trainmen, killed, 262, injured, 1,367; switchmen, flagmen, and watchmen, killed, 13, injured, 69; other employees, killed, 38, injured, 367.

The list of killed and injured from coupling and uncoupling cars is large, and the Commission should press forward in the work of having automatic couplers on every freight car in the country. Passengers fare very well when compared with employees, and it is really wonderful how many people are carried and how swiftly, day after day, and so few are hurt or killed.

The number of passengers killed during the year was 221 and the number injured was 2,945. Corresponding figures for the previous year were 222 killed and 2,795 injured. In consequence of collisions and derailments 72 passengers were killed and 1,134 passengers were injured during the year embraced by this report. The total number of persons other than employees and passengers, killed was 4,680; injured, 6,176. These figures include casualties to persons classed as trespassers, of whom 4,063 were killed and 4,749 were injured. The summaries containing the ratio of casualties show that 1 out of every 447 employees was killed and 1 out of every 28 employees was injured. With reference to trainmen—including in the term enginemen, firemen, conductors, and other trainmen—it is shown that 1 was killed for every 150 employed and 1 was injured for every 11 employed. One passenger was killed for every 2,267,270 carried and 1 injured for every 170,141 carried. Ratios based upon the number of miles traveled, however, show that 60,542,670 passenger-miles were accomplished for each passenger killed and 4,542,270 passenger-miles accomplished for each passenger injured.

New Books of Importance.

The following books, published by W. B. Saunders, of Philadelphia, are now in press and will be ready September 1st, 1899.

The International Text-Book of Surgery, edited by Dr. Warren, of Boston, and Dr. Gould, of London.

This *International Text-Book* will present a complete treatise on the theory and practice of surgery in its most advanced aspects. There is a real need among practitioners and advanced students for a work on surgery, encyclopedic in scope, yet so condensed in style and arrangement that the matter usually diffused through four or five volumes shall be given in one half the space and at a correspondingly moderate cost.

Heisler's Embryology. A Text-Book of Embryology by Dr. Heisler, of Philadelphia.

Kyle on the Nose and Throat.

Jackson, Diseases of the Eye.

Kyle on the *Nose* and *Throat*, *Heisler's Embryology* and *Jackson's Disease of the Eye* are practical text-books for students, written by men of long and successful experience as teachers of these branches.

Special features of Dr. Kyle's book are the logical classification of the diseases, the modern pathology illustrated with new and original cuts, and the extended consideration given to details of treatment.

Pelvic Inflammations, by Dr. Pryor, of the New York Polyclinic.

In his *Pelvic Inflammations*, Dr. Pryor directs the attention of the general practitioner and specialist to a surgical treatment of the infectious pelvic diseases of women. The subject is a most important one, in so much as inflammatory lesions constitute the majority of all pelvic diseases.

Abbott on Transmissable Diseases, which is an important and timely contribution to the literature of preventative medicine.

Neurasthenia. Its Pathology and Treatment.

Perhaps, as a matter of fact, we do not study our neurasthenic cases as we should. It is generally such a bother to treat a case that we get out of patience with, after the first few visits and prescribe as a matter of form with hardly any hope that the remedy will have any curative effect, not knowing what there is to be cured.

Dr. Savill, in "Treatment," divides neurasthenia into four pathological groups, Toxic, Malnutrition, Fatigue and Emotional, the last named including cases of traumatic origin.

In the first group some toxic condition of the blood acting on the nervous system—either alone or in combination with some factor which has rendered the nervous system less resistant—produces neurasthenia.

In another group (Malnutrition Neurasthenia), deficiency of the general nutrition of the body, acting on a nervous system specially predisposed or enfeebled, either by heredity, overwork (nerve strain), or disease, results in neurasthenia. The neurasthenia, which arises in association with a deficiency of the general nutrition of the body, is seen most typically during the convalescence *after* acute specific fevers or other exhausting illness. The point most noteworthy about malnutrition neurasthenia is that general malnutrition appears incapable as a rule, of acting as a cause alone.

In other cases (Fatigue Neurasthenia) *exhaustion of the nervous system* produces neurasthenia, the digestive and other organs of the body being healthy, there not being in such cases any necessary predisposition in the nervous system. This includes the neurasthenia so frequent among medical men and other professional classes. But in this group this cause may act in combination with one or more of the others.

In this connection it is worth remembering that all functions of the body are dependent upon the nervous system, and therefore it is a mistake for a person to think that he can rest his brain after vigorous and exciting operations on the Stock Exchange, for example, or in medical practice, by taking a thirty or forty mile bicycle ride into the country. We have not two brains, and we have not two nervous systems, one for the workings of the mind and another for controlling the muscles. These facts should be remembered when selecting the kind of rest and recreation required in any particular case.

Finally, there is a class of cases where the nervous system, being (usually) debilitated or indisposed in some of the ways just mentioned, presents all the signs of neurasthenia consequent on some prolonged or sudden and severe emotion, such as grief (Emotion Neurasthenia); or the shock of some accident (Traumatic Neurasthenia).

How an emotional strain such as a bereavement produces neurasthenia is not quite so easy of explanation. It may, however, be borne in mind that the effects of a sudden severe emotion are often very much like those of exhaustion (or over-functioning); and both are capable of producing complete generalized weakness, a general inability to move the limbs (prostration, collapse, or shock), of a more or less transient kind. Both seem to paralyze the motor cells, and if this be so, why should not the same effect be produced upon the brain, cord, and sympathetic system?

It sometimes happens that the resulting neurasthenia is of a very lasting character.

Traumatic Neurasthenia.—That neurasthenia may be determined suddenly by a severe injury has only been admitted within the last few years, but there is no doubt that it may be so. It is, however, a curious circumstance that the neurasthenic symptoms do not necessarily follow immediately on the injury; there may be an interval of several weeks, or even months. In such cases there is very often some other contributory cause, albeit of a trivial kind, which takes longer to act, or comes into operation later.

In traumatic neurasthenia it is not the injury itself, but the emotional shock, the fright, or the sudden emotional effect, which really produces the disease.

The nerve symptoms which arise in cases of railway accidents and injuries to the spine (railway spine) or head have afforded ample material for the study of traumatic neurasthenia, and on this subject reference may be made to the valuable contributions of Mr. Herbert Page.* The neurasthenia which follows injuries to the spine affords some of the best and purest examples of "spinal neurasthenia" we meet with.

These are four groups which appear to include all cases of this protean and variable disease. But it is important to remember two facts of prime importance. The first is that very often we find two or more of these pathological causes in operation at the same time; and secondly, the part which heredity plays in the causation of neurasthenia. Heredity, of course, plays an important part in all diseases of the nervous

*Injuries of the Spine and Spinal Cord. Herbert Page. Churchill, London, 1885.

system, and, according to some, it plays the leading role in neurasthenia, even to the extent of being the sole cause in some instances.

The next question to consider, is whether there are any means of clinically differentiating these four groups.

Some observers divide neurasthenia into an endless series of varieties. For instance, authors sometimes speak of gastric or cardiac, or pulmonary, and other varieties of neurasthenia, according to the principal organ affected by the symptoms of the disease. But this does not seem to me scientific, for it is undoubtedly a general disorder, and all of its symptoms are manifested through the nervous apparatus. I am inclined to follow Beard in making only three types of the disease—the cerebral, the spinal and the cerebro-spinal; and for purposes of treatment this is sometimes useful, but even here no hard-and-fast line can be drawn.

The next question before us is, Why should the same symptoms arise from such different causes? How is it that the same diseases arise under such different conditions as gastro-intestinal disorder, malnutrition, over-functioning, emotional strain, and traumatism? Now, the answer to this question is that the nerve structures mainly involved in each case are the same, and that these structures are the vasomotor and sympathetic systems.

No doubt the cerebral and spinal structures suffer as well, and are directly affected in many instances by the over-functioning, malnutrition, or toxic blood state, as the case may be; but it is the disorder of the vaso-motor and sympathetic systems from which the most important and constant symptoms and consequences arise. What symptoms are directly referable to these systems? Can all the symptoms be explained on the above hypothesis? and how does the sympathetic system come to be affected in each of the four pathological groups?

Symptoms directly referable to that part of the sympathetic system concerned in regulating the circulation are certainly very common, if not the commonest, in neurasthenia.*

The reflex muscular irritability so noticeable in some cases—the restless, muscular twitching and startings, the want of control over the legs, and general nervousness—may well be accounted for by irregular flushings or pallor of the spinal cord. The rapidity and irregularity of the pulse, the palpitation, sighing respiration, prostration, feelings of swelling, acroparæsthesia, tingling, heaviness, feeling of "bursting," and sometimes swelling of the extremities, may all be accounted for by irregular flushings of the limbs. The disagreeable feeling of sinking through space, reeling, swaying, "dizziness," or vertigo, agoraphobia, and the like, may very well be accounted for by irregular flushings or pallor of the semi-circular canals and structures around; in the same way as the increased flow of urine which follows the paroxysms that are met with in some cases may be explained by flushing of the kidneys and splanchnic area. The characteristic headache—a feeling as though the head would burst, or as if it were constricted by a tight helmet ("the "casque neurasthenique" of Charcot)—can be similarly explained by disturbances of the *cranial or intracranial circulation*.

In that variety of the disease which some observers call "gastric neurasthenia," in which the leading symptoms are nerve symptoms referrable to the stomach, may not the gastric symptoms which imitate true gastric disorder be accounted for by sudden irregular flushings or pallor of the mucous membrane of the stomach and intestines?* The dilatation of the stomach, which, according to some, is a frequent accompaniment of neurasthenia, would be readily accounted for on the above theory by paralysis of its muscular tissues; and the constipation, which is certainly present in a large number of cases, by paralysis of the bowel.

Turning to the cerebral symptoms, such as confusion of thought, loss of memory, irritability of temper, broken sleep, bad dreams, nameless fears, "horrible thoughts," sometimes hallucinations, a "bursting" feeling in the head, forgetfulness, inattention (and consequent inability to do business)—these may be due either to the irregular flushings, or in some cases to the direct action of the toxic blood (in toxic neurasthenia) on the cranial and intracranial structures.

It may be replied to this that some of these symptoms tend to become very

*Beard himself points out the prominent part played by the sympathetic system. His theory is that the symptoms of neurasthenia are due primarily to a want of cerebral control. Consequently, the vaso-motor centre, not being under cerebral control, becomes very unstable. The cardino-vascular system, having most sympsthetic nerves, shows the symptoms most.—Neurasthenia, Beard and Rockwell, 1891.

*Some French authors have included certain cases of hæmatemesis under neurasthenia; if the above view is correct such cases can be explained.

permanent and stable. But it must also be remembered that in the brain—and the same remarks might apply to other parts of the nervous system—we have an organ consisting of soft, friable, unstable, and most delicate material, and that on this account a severe congestion or pallor might produce more serious and more lasting damage, and therefore more persistent symptoms. Moreover, in some cases the toxic quality in the blood is continuously present.

But, it may be asked, how are we to account for the *pain*, and some of the other sensory troubles? Now, in the first place, Beard's suggestion that the pains may be produced by local congestions is a not unreasonable one.‡ In the second place, it should also be remembered that pain of a neuralgic character, as we understand it, is not such a frequent symptom as one would imagine, for the term "pain" is most vaguely used by patients to describe any feeling of discomfort. This more often takes the form of tingling, prickling, formication, and the like. Even when actual pain is complained of, it is found very often to consist of a dull, weary aching like that met with in over-fatigued muscles, which may probably be explained somewhat after the same fashion.

As regards the *sensorial troubles*, the hyperæsthesia, contracted fields, etc., these are readily accounted for either by the increased sensitiveness or the fatigue of their centres, aided probably by irregular blood supply, and in toxic neurasthenia by the altered quality of the blood.

In short, as regards the bulk of the symptoms, there is nothing which explains all the symptoms so well as vaso-motor and sympathetic disturbance; and nothing which affords so satisfactory an explanation of the variations from time to time, and day to day, in the degree and character of the manifestations.

In all probability the same vascular irregularities occur in all the other physiological systems, and hence the endless variety of the symptoms and sensations, and the feeling, as more than one patient has put it, "as though his whole inside was in a whirl," "the inability to think for two seconds together," and the general want of harmony and co-ordination in the economy.

TREATMENT OF NEURASTHENIA.

The very names of the four groups alone supply us with certain indications as to treatment. The malady, in most cases, is eminently curable, but nothing can be done excepting by a systematic course of treatment, which sometimes extends to several months.

We will commence with the first, the most common group, toxic neurasthenia. Here the indications are to relieve the dyspepsia and constipation, to lessen the irritability of the nervous system, and to improve its nutrition.

When dealing with toxic neurasthenia we referred only to gastric disorder; but this variety may arise equally well from hepatic or renal disorder, or from some general dyscrasia. Galvanism of the cervical sympathetic and along the course of the pneumogastrics is very useful in some forms of the dyspeptic neurasthenia, harmful in others; but it is difficult to draw any general rules in this matter. It seems most efficacious when the gastric symptoms are typically neurotic in origin. The constipation, which also exists in a very large number of cases, must never be neglected.

That neurasthenia may arise when the digestive organs, the liver, kidneys, and other organs are in perfect health, is a fact, which is frequently impressed upon us in private practice, where overwork and malnutrition appear to be the most frequent causes. In simple cases of this kind the two chief indications are rest in its widest sense, and the improvement of the nutrition of the body in general and the nervous system in particular.

Whenever the patient is awake, some part of his nervous system is always in action, but we have in sleep the most perfect form of rest to the nervous system possible, and one of our first cares should be to relieve the insomnia which is so frequently present.

Besides spinal galvanism, hypnotism is another means on which one can also rely to allay the irritability of the nervous system. General faradization of the limbs and static electricity are invaluable remedies to promote the tone of the muscles, but these are not so useful as sedative measures. Great results have been claimed for the d'Arsonval method of applying the high frequency current.

Hypnotism can only be of service in uncomplicated cases, and under certain conditions, as an adjunct to other treatment. It is chiefly applicable to cases of cerebral neurasthenia, and it is successful in cases due to shock, grief, and anxiety. Nerve tonics are useful adjuvants when the primæ viæ are in good order,

In cases where irritability of the nervous system is present a series of warm baths, and particularly in the form of the Turkish bath, taken leisurely, and allowing a full

‡Loc. cit.

hour for rest in the cooling-room. For these cases cold douches should be avoided. But, on the other hand, where spinal weakness is a feature cold douches to the spine are useful. In either case, whether hot or cold baths are employed, a course of several weeks is necessary.

The question of exercise—walking, riding or bicycling—is one of some importance, and one in which we must be guided by circumstances, and also largely by the inclinations of the patient himself. In general terms, gentle muscular exercise is liked by, and is beneficial to, patients suffering from cerebral neurasthenia; whereas in spinal neurasthenia it is generally found fatiguing and harmful, and in these, rest or passive movements only are permissible. We must, therefore, ascertain which predominate, the cerebral or the spinal symptoms. A sea voyage, if the patient can afford to do it in comfort and free from anxiety, is specially indicated in cases due to mental strain and overwork, it is impossible to undertake any serious brain-work on board ship.

The symptomatic indications in this disease are endless, but there are one or two which may briefly be referred to. Many of the vaso-motor attacks, flushing, pallor, shivering, giddiness, a feeling as though they were going to faint, etc,, may be relieved by a draught of sp. ammon. aromat. ♏ 15, tr. digit. ♏ 5, aq. chlorof. ʒ i.; the trinitrin tabloids (gr. $\frac{1}{100}$), given when the attack is impending. The "sinking feeling in the stomach," and—strange as it may seem—the feeling "as of sinking through the bed," may be sometimes relieved by wearing an abdominal belt or flannel roller round the belly. It is a good plan to examine the abdomen in all cases of neurasthenia, for, as Glenard has pointed out, it may be associated with floating kidney or other displacement of the viscera.

Some of the Uses of the Roentgen Light.

Dr. F. H. Williams (American Journal of the Medical Sciences, June, 1899,) says:

In a general way x-ray examinations may be said to have thus far been most used to detect foreign bodies or changes in shape or composition in bones, as in fractures, dislocations, necrosis, tuberculosis, rickets, and osteomalacia. In medicine the Roentgen light may be used to distinguish gouty deposits about the joints from rheumatoid arthritis. The stomach may be examined by giving the patient a large dose of subnitrate of bismuth (which the x-rays do not easily traverse) with food, and then looking at the shadow of its contents by means of the fluoroscope. The writer says that in many cases of carcinoma of the stomach he had examined with the fluoroscope if the growth could be seen it could be felt. The surface of ascitic fluid may be seen in the fluoroscope if the patient is examined lying on his back. the physician looking through the body transversely. Renal or vesical calculi containing phosphate or oxalate of calcium have been detected by an x-ray photograph. One of the most useful medical applications is either in or contiguous to the thoracic cavity. Many thoracic aneurisms which were formerly beyond our reach for diagnosis may now be recognized with certainty. In emphysema, the excursion of the diaphragm is less than in health. In pleurisy of large effusion the heart is much displaced. Calcareous deposits in the pleura are to be seen as dark areas in the fluoroscope. In pneumonia the dark area of the pneumonic process is seen, and further, the excursion of the diaphragm is less than normal.

The Typhoid Bacillus.

We have been thinking that the typhoid germs were localized in the intestinal canal as the seat of operation, of course we supposed that they occasionally wandered off in the neighboring glands simply for recreation.

Later investigation shows plainly that they can do their deadly work in any old place, that while preferring the Patches of Peyer, they will put up with the lungs, pleura, liver, spleen, and kidney.

Schichold, in Deutsch. Archiv. f. Klin. Med., found the bacilli in the urine only in those cases where evidence of renal disease existed.

According to the International Medical Magazine, they appear shortly after the onset of the kidney trouble and last well into the convalescence. They appear to be highly virulent and the disease may be transmitted by the urine.

Gonorrhœa and Endocarditis.

That the gonococci may find their way into the blood current and there set up a destructive process has now been proven beyond doubt. Thayer and Lozear, in the Journal of Experimental Medicine, report two cases, one male, one female, in both necropsies were had showing ulcerative endocarditis and thrombi on the valves with colonies of the gonococci.

This is respectfully dedicated to those men who do not care any more for a case of gonorrhœa than they do for a bad cold.

Present-Day Requirement in the Management of Pregnant Women.

Dr. Ayers, in the International Medical Magrzine, says that the obstetrician who poses as an expert, and does not employ early diagnosis and prevention, is unanimously regarded as incompetent.

Hemorrhage from placentra previa and eclampsia are the first dangers for consideration when one is engaged by a pregnant woman. We will not catch many cases of placenta previa by early examinations, or before they declare themselves by a blood show. Many able minds have been busily engaged endeavoring to locate the placenta with but poor results.

By the vagina we may sometimes feel the placenta when it is lying over the internal os. Patients with placenta previa should either be at all times (as in a hospital) within the *immediate* reach of a physician, or undergo induced labor.

In the prevention of eclampsia the latest views recognize that the disease is one of possibly special toxin development, but certainly the retention of poisons that should be escaping from the body through the eliminatives. Hence the practice of testing the urine for the reduction in the amount of urea excreted.

It is assumed, with very general approval, that while urea may not be the eclamptic generator, its lessened elimination bears much the same relation to eclampsia that falling of the barometer does to an approaching storm.

The older tests for albumin, casts, and reduction in quantity, have lost none of their weight of importance as fore-signs of eclampsia. The most prominent adjuvant in treatment both for a threatened attack and one that supervenes is hot saline solution, or artificial blood-serum. The usual solution employed is a sterilieed 6-10% solution of salt in hot water, which can be given most easily by injection into the colon through an eighteen-inch tube, and limited in quantity only by the ability of the patient to retain it.

This solution is now extensively used in cases of severe hemorrhage, and is probably the most valuable article in the nature of a remedy taken up by obstetricians in this generation.

Ante-partum examinations are of great assistance in the efforts we are all making to reduce the evils of mal-positions and dystocia. It is a perfectly conservative statement that fully one-half the improvement in the results from these difficulties is obtained where the obstetrician employs careful and skillful examinations before labor.

Diet has received more attention of late years than formerly.

The numerically most important topic in obstetrics—sepsis—has only recently seen two important changes of view: First, in the matter of prevention; and second, in treatment. It is now accepted that the normal condition of the vaginal area is one of asepsis, and that the secretions are themselves germicidal.

But the introitus and vulvar surfaces are not aseptic and are not germicidal, hence they should be carefully cleansed before any examinations are made. The best method of making digital examinations is to cleanse both vulva and one's own fingers, then hold the lips of the labia minora apart while introducing the fingers of the other hand.

Some vaginæ are in a septic condition and should be cleansed.

In treatment of puerperal sepsis we seem to be rather worse off than we thought we were a year or two ago. Anti-streptococcic serum is practically discarded as useless, and no other article can be claimed as of specific value. Blood flushing with saline solution, local surgical cleansing and the old friends of the pharmacopeia are the most that can be mentioned.

Diet in the Typhoid State.

Why is the tongue dry in the "typhoid state?" meaning thereby not typhoid fever alone, but that advanced condition of prostration which, although found in a typical form in the later stages of enteric fever, is also met with in typhus fever, pneumonia, and pyæmia, and often towards the close of phthisis and many other diseases accompanied with fever, exhaustion, and cardiac failure. Dr. Dickinson (The Hospital, June 24, '99), says that in this condition the tongue is dry because no saliva is secreted, and that there is much reason to believe that what happens also to other glandular structures concerned in digestion, so that a dry tongue may be taken as a sure sign that, as well as the accompanying loss of appetite, there is also a loss of digestive power. What has then been done under such circumstances, to give only liquids—that is to say, foods on which one part of the digestive process, and that probably the most difficult part, has been accomplished. Dissolved food can be absorbed and utilised with the minimum of digestive effort. Milk is a complete nutriment. Eggs in their entirety—that is, yolks and whites together—may also be regarded as a complete nutriment. Beef-tea takes the next place

to milk in the accepted dietary of the typhoid state. It contains the animal extracts, such as are found in Liebig's Extract, together with gelatin and (in the sediment) albumin. But it contains only a trace of fat, and thus is wanting in carbonaceous materials. It must, however, be remembered that even the most nitrogenous components of our food contain three times as much carbon as nitrogen, and that, as we see in diabetes, a considerable amount of hydro-carbon may be set free even out of a diet which consists as strictly as possible of foods of the nitrogenous class. Still, it is better, where the digestive power is so enfeebled as in the cases under consideration, to add the essential carbon ready for use in a liquid form, and for this purpose sugar supplies exactly what beef-tea is wanting in. Arrowroot, which itself is almost pure starch, is also a convenient vehicle for sugar. Both milk and beef-tea may be peptonised in extreme conditions, but generally if the food is presented in a liquid form the stomach may be left to do its own work in regard to absorption.

Passing now from the typhoid state in particular, the necessity of the addition of sugar and starch must be insisted on whenever the diet consists largely of beef-tea. Brandy and egg mixture must also be remembered as an important means of completing the diet in the typhoid state, whether this occurs in the course of typhoid fever or not.

Army Rations.

To those who have been accustomed to the belief, that the U. S. soldier is the most liberally fed fighter in the world, the comparisons of Dr. Charles E. Woodruff, in the Medical Record, will come as a kind of shock. A table, showing the army rations of eight of the great nations, places the United States on a middle ground, that is the soldiers of England, Spain, Germany and Russia are poorly fed, while those of Austria, France, and Italy are much better fed than those of the United States. But a closer examination of the table, together with an understanding of the method of issuing the ration, will place the United States somewhere about the foot of the class.

The author commends the flexible ration of the other nations, notably: that of Austria, where the amount of food may be doubled during hard fighting or unusually hard work of any kind. In this country the ration is fixed by law and must serve all purposes, climates and condition of men. The estimates of the physiologists, which was the basis of our army ration, are shown to be entirely inadequate.

The matter of substitution is a serious drawback to our system, as meat can only be substituted for meat, bread for bread, one kind of vegetable for another. In other countries, if the meat is less the bread and vegetables are more, and the same increase is allowed in the other articles where one falls below the usual.

We are the only nation in the world supplying the whole ration in kind in time of peace and the long forwarding of supplies from the base, is a most serious matter when the health of the soldier is considered.

The author concludes that the company fund should have an unfailing and regular income, as in every other civilized nation.

Attention is called to the fact that some of our highest officers are convinced that the United States soldier is the best fed soldier in the world; he is for dress prrade in a warm climate, but for hard work in camp or in the field, he is underfed and falls a ready victim to fever and intestinal disorders.

The ration has lately been increased by the addition of 2 ozs. of dried fruit and allowing fish and ham for beef. This is a step in the right direction, but it should be followed up.

The Prognosis and Indications for Radical Treatment of Myomatous Tumors of the Uterus.

Byford (Western Clinical Recorder).

Intrauterine polypi may grow to a large size and cause serious impairment of the health by hemorrhage. They are liable, however, to be expelled after attaining a size equal to that of an orange or a cocoanut. In the latter class of cases the capsule, or even the whole tumor, becomes gangrenous and hangs in the vagina, causing dangerous septicemia, from which death has been known to result.

Submucous tumors, when few in number, grow to a large size, and are apt to become dangerous by reason of hemorrhages.

Intramural and subserous tumors usually grow to large size, and after many years cause serious impairment of health, or even death, by reason of hemorrhage.

Subperitoneal tumors extending between the folds of the broad ligaments exert dangerous pressure before becoming very large, and show but little tendency to stop growing. The same may be said of cervical myomas.

Tumors commencing in young women may be expected to attain dangerous proportions, while those commencing in ad-

vanced life will probably never do so before the patient dies of something else.

Single interstitial tumors, or a small number of comparatively soft interstitial tumors, may be expected to grow almost indefinitely; while a large number of hard ones in separate capsules grow slowly, and may be expected to stop growing before becoming very large, either singly or in the aggregate.

The menopause may check the growth of tumors projecting from the serous surface and of small interstitial growth. Large interstitial submucous and intraligamentous tumors continue to grow after it.

Tumors that produce excessive menorrhagia delay the menopause from two or three to eight or ten years beyond the natural time.

Rapidity of growth renders the prognosis unfavorable.

Malignant degeneration is rare.

Haemato-Hydro-Nephro-Ureterosis

A very unusual case of injury of the kidney and ureter following traumatism is reported by Dr. John H. Summers, Jr., in the Medical Record:

Early in December, 1898, the patient fell and struck her right side on the edge of the side-walk. Pain and shock followed with bloody urine, some temperature above the normal.

Tumor soon appeared, which felt boggy, as if it contained clotted blood.

Three weeks after the injury the case was operated upon, the tumor evacuated by trocar of several quarts of dark-colored watery fluid, the kidney and ureter being useless, both were removed, the whole operation being extra-peritoneal.

Patient left February 4th, 1899, perfectly well.

On examination of the specimen, it was found that all semblance of kidney tissue had disappeared; there was no trace of either pyramidal or cortical substance. On the inner surface opposite the mouth of the ureter was a rent which did not extend quite through the sac wall. A plastic exudate with very firm adhesions had been observed external to the sac opposite this rent, which was evidently the source of the hemorrage.

Howard Kelly has done three ureteronephrectomies, one transperitoneal, the others extra-peritoneal, and to Kelly we are indebted for our knowledge of a beautiful technique. A French surgeon, Reynier, has also done the operation once. These operations were for tuberculous involvement of both kidney and ureter, the tumor in all cases being comparatively small. Whether or not a ureter should be removed with its kidney will depend upon circumstances. If the upper 5 to 7 cm. of the ureter are free from involvement of the disease for which the nephrectomy is indicated, then the ureter should be let alone; otherwise it had better be taken out in part or in whole. In tuberculosis of the kidney cut off the ureter 5 to 10 cm. away from the kidney, unless the ureter is infiltrated with tuberculous material. In such a case it would appear better to remove the ureter, applying the same principles employed in operating for tuberculosis in other parts of the anatomy. As suggested by Kelly, the ureter may be removed at a second operation.

The Treatment of Indigestion of Infants.

Indigestion of infants is too frequently ignored by parents, especially young mothers, until at last is engrafted gastro-intestinal catarrh, when at once they become alarmed, and justly too, and seek advice, either from the tradition-burdened grandmother or the physician. It is the physician's luck to be called after all domestic means have failed. He is supposed to effect a cure forthwith, even though he first has to remove the trouble caused by the lotions, etc., which have been administered by the mother. If the mother had as vigorously watched the cause of the disturbance (faulty feeding) as she applies home remedies, the chances are that the child would have had no trouble. Infant feeding, then, should receive careful study by the mother, and attention be paid to the details of hygienic care. These measures would do much toward preventing indigestion and gastro-intestinal catarrh.

Treatment, too, of the diarrhœa, which becomes a factor in the prognosis, should also receive attention. The use of mineral acids, bismuth and pepsin, is well known, and also the use of Lactopeptine, which has been commended by J. Lewis Smith, who attests its usefulness in these cases.

For several years we have used lactopeptine in the indigestion of infants; in fact, it is much of a routine treament, and the results have always been highly satisfactory. Infants need it when indigestion is more or less chronic, and it will do valiant service in correcting the difficulties of digestion here encountered. In addition to medical care, much attention must be given to the hygienic surroundings of the child, its bath, its outdoor life, its exercise, the water it drinks and the quantity of food taken —F. P. Norbury, M. D., in *Medical Fortnightly.*

Typhoid Fever.‡

Years ago—somewhere in the fifties—I taught a classical school in the "Old North State." Coming from Rhode Island, the "Center of Civilization," I was pitied and sympathized with by my home friends as being out of the world. However, I staid and the rumbling of future trouble was heard during the Fremont Campaign, when I returned North and resumed my medical studies, and now, after the lapse of nearly half a century, I am confronted with The Charlotte Medical Journal, and am forced to admit that, although I take over a dozen medical periodicals, this JOURNAL is the fullest, most complete, exhaustive, and, at the same time liberal journal for the general practitioner of the whole lot.

I was particularly interested in the question of typhoid fever, as discussed by Dr. Brownson in the July number. If, as was hinted, the rose-colored spots are more frequently found in malarial regions, and if large doses of quinine will assist their development, then I have learned something that could astonish the profession in Iowa. Here we have little or no malaria and quinine is seldom administered at all in this disease; or at all events, late in the course and in but small doses. I have been through several extensive epidemics of typhoid fever here, and can safely assert that I have found the spots in at least 80 per cent. of the cases, and these always made their appearance before I had given a single grain of quinine. In fact, the entire absence of the spots always engendered a suspicion that I had made an error in the diagnosis. I entirely agree with the author of the paper referred to, that a more careful examination would bring to light the characteristic spots more frequently than is suspected.

One idea further while upon this subject: Typhoid fever as at present treated has lost with me most of its dangerous peculiarities. The tympanites is often lacking, or if present easily controlled. Hemorrhage is almost unknown. The comatose condition which we used to expect for five or ten days is entirely eleminated, and if the disease itself is not abated, it is robbed of its dangerous features and cut short as to time; nor does it leave its victim an almost helpless member of society for many months after its termination.

How has this wonderful change been effected? By non-irritating treatment and by internal asepsis. By abstaining from all active cathartics after the intestinal canal has been once emptied. By giving frequent small doses of calomel until the bile shall be poured out in sufficient quantities to act as a microbe-killer in the intestines. By charging the system with the most powerful and least poisonous antiseptics, such as guaiacol, eucalyptol, menthol and thymol. By flushing the entire alimentary canal with frequent copious draughts of pure cold water. By supporting the system with a nourishing diet, chiefly of a liquid form, and finally by leaving altogether out of the treatment alcoholic beverages of whatever character. Of course, the old-fashioned turpentine emulsion comes into play as a useful adjunct whenever the tongue takes on the "brown streak in the middle." Of course common sense calls for cool water bathing as long as there is elevation of temperature and a daily warm bath afterwards. Of one thing, however, neither common sense nor science approves. This is, the giving of powerful antiseptics (coal tar derivaties) every day to reduce the temperature, followed by large doses of quinine and whiskey to elevate it again. Here nature knows what she is about. instead of this zigzag treatment which but tends to wear out the patient, nature builds up an internal fire which is hot enough to kill the typhoid bacillus and thus make the disease self-limiting.

In order to obtain the favorable results merely hinted at in this paper, it is not necessary to follow any man's peculiar "treatment." When a physician claims thatby a stereotyped routine of treatment he can abort nine-tenths of his typhoid cases, and carry the other tenth through with no bad symptoms, he is claiming by far too much. Every individual case of typhoid requires its own peculiar treatment, according as the patient's temperament may aggravate certain symptoms, or perhaps, omit them altogether. To sum up, the four cardinal virtues in the treatment, of this, and perhaps other diseases, are cleanliness, antisepsis, rest and nourishment, and the fewer the drugs the better for the patient.

‡By Dr. S. D. Tobey, Oakland, Iowa.

The Use and Abuse of Pessaries.

The pessary has been forced to take a back-seat in the past few years.

Only a short while ago a full set was considered indespensable accompaniments of the sound and speculum; to-day they are becoming rare and curious.

Dr. E. E. Montgomery, in the International Medical Magazine, gives some valuable points for those who use pessaries. He well says that there are displacements of the uterus that give rise to no inconvenience and, again that there is no displacement, but the wearing of a pessary will afford re-

lief, as in congestions or inflammation with tenderness of the broad ligaments and a heavy uterus where traction or jarring produce pain, the simple elevation and support of the uterus will be attended with gratifying results. It is important to secure the proper size, not too large or too small, measure the vagina in length and width. Use hot vaginal douche at least once a day while the pessary is worn. Be sure and caution the patient not to use an astringent injection as it will roughen the instrument. Don't try to replace with the pessary, first replace the uterus then fit in the support.

To sum up, the author says that the pessary should not be used when no inconvenience attends the displacement, or when adhesions exist that do not allow the uterus to be held in its proper position, or in large uteri with acute retroflexion.

The Bottini Operation for Enlarged Prostate.

The electrical treatment of prostatic hypertrophy must have a future before it, to judge from Dr. Ramon Guiteras' report of twelve cases in the Medical Record for July 29th.

The ages ranged from 49 to 79 years, in fair physical condition at the time of operation. In most of the cases local anesthesia was used, but it was hardly sufficient and general anesthesia with nitrous-oxide gas is recommended. The doctor's fear of chloroform, we think, is without foundation.

The indications are as follows: Frequent urination, residual urine, cystitis, retention, etc.

The operation is contraindicated in bad disease of the kidney.

Carefully examine urine.

Cystocopic examination not necessary.

The usual incisions were three in number, one posterior, one lateral, one anterior. The strength of current used was from 40 to 50 amperes from a storage battery which would furnish sufficient electricity for three operations. In five cases the ordinary street current was used to heat the incisor.

The average length of incision was 3 cm., time for each incision one to two minutes.

It is important in making the posterior incision to have the point of the instrument well down behind the prostatic border.

The good effects from the operation is caused by the furrow through the gland and the destruction of some of the blood vessels, inducing atrophy.

The sloughs are usually thrown off from the 7th to 21st day. A catheter should not be passed if possible until the sloughs have come away.

A patient with complete retention should never be operated upon until he has been broken into the catheter habit.

The important parts of the preparation are the solutions, and the arrangement of the cooling apparatus, battery, etc., as well as seeing that all the instruments necessary are at hand. The instruments and apparatus required are a soft rubber elbow catheter; a large rubber hand syringe and a small urethral one; a scalpel; a bottini incisor; a fountain syringe, and two pieces of tubing, one leading from the douche bag to the instrument, the other from the instrument to the receptacle on the floor; a galvano-cautery, or a transformer with a portable amperemeter; glycerin, solution of eucaine (four per cent.), saturated solution of boric acid and a cylinder of laughing-gas.

The condition of all the patients was very much improved, as evidenced by a diminution in the amount of residual urine. Some were entirely cured.

Extra Pulmonary Coughs.

The practical points in the diagnosis of reflex coughs are brought out by Dr. Albert Abrams in Medicine for August. The phonograph is used to register coughs for the purpose of comparison.

Roentgen rays are employed as a routine measure. The patient should be taught "diagnostic breathing" in a careful examination of the chest.

Nitrite of amyl will differentiate the rales of asthma from those of bronchitis, as after inhalation the asthma rales disappear while those of bronchitis persist. Iodide of potash, bromoform, creosote vapor bath may be used as aids in diagnosis. The author mentions coughs as coming from irritatation of the skin, ear, nose, nasopharynx, pharynx, tonsils, uvula, or lingual tonsil. Points of irritation may also be found in the teeth, esophagus, liver, spleen, pleura, stomach uterus and contiguous structures.

Properly a cough should direct our attention to the lungs first, and we should give them a thorough examination.

Patients with incipient consumption and even in the later stages, console themselves with the thought that the cough is from the stomach or due simply to a tickling in the throat, and we should not be turned away from the main organ to be examined by any talk of the patient.

It is better, perhaps, to treat the cough as pulmonary when it is only reflex, than to be careless in an examination and treat a cough as reflex when the lungs are being rapidly affected.

Serotherapy.

Under this heading Dr. C. P. Ambler, of Asheville, read a paper before the Section on Practice of Medicine, of Columbus, reported in the Journai of the American Medical Associaion.

Dr. Ambler's paper is a careful and painstaking report of 106 cases treated with serum, nothing wild or hysterical, simply the presentation of the facts so far as these one hundred and six cases are concerned.

The tabulated report is as much in a given space as we ever saw, and is certainly convenient, showing at a glance the condition before and after the treatment.

Dr. Ambler concludes that serum patients do not relapse like those treated with creosote and other allied drugs. The use of antistreptococci serum in conjunction with antitubercle serum was not of any special benefit. Next year the author proposes to give a detailed report of the then present condition of all the cases living.

This paper is one of the most carefully prepared papers we have seen on this subject, and is certainly to be commended for its real scientific spirit.

Organotherapy in Inoperable Carcinoma.

Dorland (Therapeutic Gazette). The ovaries exert a curious and as yet incomprehensible influence over the tissues of the body, and especially over the mammary glands.

This ovarian influence is in part neutralized by the action of the thyroid gland or of thyroid substance introduced into the body.

The administration of thyroid extract alone to patients suffering from cancer of the mammary gland or of the cervix uteri which has passed beyond the possibility of extirpation by the knife exerts a slight inhibitory action upon the growth, and results in a decided relief of the two prominent symptoms—pain and discharge. This action, however, appears to be but temporary.

The removal of the ovaries in cases of inoperable carcinomata, provided these organs be actively functionating, will result in many cases in an arrest of the progress of the malignant disease, or even in a total destruction of the neoplasm, and an apparent cure of the condition.

This inhibitory action of oophorectomy in inoperable carcinomata is more decided if at the same time as much of the cancerous growth be excised as is possible, and the operations be supplemented by the administration of thyroid extract in full doses.

In older women, in whom there has already occurred an atrophy of the ovarian stroma, excision of these organs does not result as promptly nor as favorably as in women who are passing through the period of sexual activity.

The relief afforded by the employment of Beatson's method appears in from twenty-four to forty-eight hours, and in favorable cases is rapidly progressive.

The dose of the thyroid extract that may be safely employed varies from ten to fifteen grains daily.

It would seem that even though this method should not result in an absolute cure of the malignant disease, it would afford a longer lease on life and more effectual relief from suffering than would any other palliative operative procedure as yet devised.

Thoracic Resection for Tumors of the Chest Wall.

Dr. F. W. Parham, of the New Orleans Polyclinic, is the author of a monograph on "*Thoracic Resection for Tumors Growing from the Bouy Wall of the Chest*," an abstract of which he read before the *Southern Surgical and Gynecological Association*, at its Memphis meeting.

Dr. Parham's paper is certainly a valuble addition to our knowledge of these tumors, which we have thought incurable. All the reported operations in this country and abroad are collected and arranged. The cases are divided into two series, cases in which the pleura was not opened and those in which it was.

The number of extra pleural cases are 26, with 7 deaths; intrapleural, 55 cases and 16 deaths. The author has performed two intrapleural operations himself in the past two years, both recovering and no recurrence.

The monograph contains 148 pages with 16 beautiful illustrations.

The Halcyon, Dr. J. B. S. Holmes' Sanatorium.

This well equipped hospital for the treatment of diseases of women and general surgery is situated at No. 17 West Cain St., Atlanta. Dr. Holmes is very well known throughout the South as a skillful operator and Dr. Davis as a well qualified assistant.

The Halcyon is a modern four story structure fitted out in every respect as a place to treat surgical diseases of all kind in the most aseptic and careful manner.

We are very glad to see that while Atlanta is forging ahead as the chief city of the South the profession is keeping step with the onward movement.

The Chancre of Syphilis.

The diagnosis of syphilis is a serious and important matter, says Dr. Thomas in the International Medical Magazine, and he takes up the diagnostic points in regard to the chancre:

1st. *The Initial Lesion*; *2nd, Adenopathy*; *3rd, The Eruption*, with concomitant symptoms of each step. Clinical history very important. The initial lesion is the chancre, the growth slow, ten days to three weeks before appreciable; hardly ever later. Of all diseases the development of syphilis is most uniform.

Some solution of continuity of the body envelope gives entrance to the poison. Exceptionally we have more than one chancre. The abrasion sometimes heals over the poison, an indurated papule, which later breaks down and ulcerates. We have virtually but two varieties—*eroded* and *non-eroded*.

Chancre may be insignificant. In the female it is hard to get a good demonstration of the chancre. It may resemble mucous patch, moist papule or abrasion. The position of the enlarged glands may aid in determining the situation of the lesion. The author states that the eruption almost always appears about sixty days from the infection.

Local treatment for chancre is cleanliness; cauterization worse than useless; excision should not be done; *constitutional treatment* the main thing.

Therapeutics; Past, Present, and Future.

This is an exceedingly broad and comprehensive subject, but Dr. Geo. F. Butler attempts a paper upon it in Medicine for August. He tells us very little of the past, barely more than mentioning the names of Virchow, Cohnheim, Koch, Lister, Pasteur, Bernheim and Kitasato, whose work is more present than past.

The author begins at once almost with serum therapy and gives some very interesting information in regard to the preparation of antitoxins. The mooted question about the streptococci is touched upon. Sternberg's Manual of Bacteriology is quoted to show that the symptoms in infectious diseases are not due to the bacteria but to the toxins elaborated by them.

The author thinks that antistreptococcic serum will prove almost as certain as diphtheria antoxin but we fear that this will not be realized until we know more certainly all the different kind of streptococci. A very favorable report of its use is shown in erysipelas and scarlatina. Tetanus antitoxin is not given much of a front seat, while the antitubercle serum of Maragliano is not thought to be of much use in this country.

When it comes to drugs the author thinks the greatest advance has been made in a pharmaceutical way.

We all want standardized drugs when it comes to accurate therapeutics, and we all want them from a reliable house.

Serum therapy is in its infancy now with a bright future before it, and we are sorry that we can not look just one hundred years into this future.

Souvenir Number of the Columbus Medical Journal.

This is a very appropriate souvenir of the Columbus meeting of the American Medical Association. The leading article is a Historical Sketch of the American Medical Association, profusely illustrated with well printed cuts.

The frontispiece is an excellent cut of Dr. Mathews, followed by one of the venerable founder of the Association, Dr. N. S. Davis; also of Dr. Loving, Dr. Simmons, Dr. Brower, Dr. Hawkins, Dr. McRae, and a large number of pictures of the places of interest in and around Columbus, rounds out a very readable historical sketch of Columbus. The different committees and the program are given in full, and this number will be interesting reading for years to come. The Columbus Medical Journal has done itself proud, and we give the Royal Salaam, thrice repeated.

Operations Upon Albuminurics.

Dr. Mongour has investigated the question of operations in the presence of albuminuria. Surgeons do not agree on this question; some few declare that they pay no attention to this condition; others have fixed an arbitrary quantity of albumen (generally from five to six grams to the litre), in excess of which quantity they do not operate; again some institute a course of medical treatment and do not intervene until the albuminuria falls within the prescribed amount. Dr. Mongour divides this class of patients into three categories: (1) Albuminuria, constituting the only symptom of renal lesion, is no contraindication for operations. (2) Albuminuria, whatever may be the quantity, co-existing with signs of Bright's disease (auditory and visual troubles, vertigo, etc.), is a formal indication for reducing to a minimum the work of the kidneys by prescribing a milk diet. If under this treatment functional signs disappear, any intervention is legitimate.

If, on the other hand, there is no improvement, we should abstain from all operative interference unless immediate death threatens. (3) Albuminuria, whatever may be the quantity, existing in conjunction with marked signs of renal insufficiency (œdema, ascites, etc.), if coming on in the course of a subacute nephritis, precludes operation until after treatment has been undergone. If the results are favorable intervention is legitimate, otherwise no operation should be undertaken, unless it is a question of life or death. In this category of patients the author makes one reservation; cases in which nephritis is accompanied by all the classical signs of Bright's disease, which seem to be daily aggravated by a suppurative lesion.

Meniere's Disease and the Organ of Equilibration.

The center for equilibrium and co-ordination is being more and more definitely localized. Dr. L. Harrison Mettler, in Medicine for August, would establish a certain definite center.

At first we were content to localize it in the cerebellum, then Nothnagel assigned it to the vermis, later Flourens, Meniere, and others, put the duty upon the semi-circular canals entirely. Dr. Mettler well says that the maintenance of equilibrium is of necessity a reflex act, and must depend upon both sensory and motor functions. The particular center should be looked for in the metencephalon, one of the oldest and most primitive parts of the nervous system.

The eighth cranial nerve being a double nerve, with two sets of fibres and two functions, it is intimately associated with this possible center, which is traced back to the nucleus of Deiters. For a long time it was supposed that this nucleus was purely sensory, however its function is efferent rather than afferent.

It is situated at the outer angle of the floor of the fourth ventricle and in the restiform body near the ventral portion of the cerebellum.

Its neuraxones extend backward into the spinal cord as far down as the lower dorsal region, probably homologous with Mauthner's fibers in fishes, which are known to be concerned in equilibration, The third, sixth and fourth cranial are united with this nucleus, sensations from the viscera may also be conveyed to it.

In a word, this remarkable and long misunderstood nucleus of Deiters must now be regarded as the meeting-place of an immense number of special sensory and motor impulses, to and from remote parts of the body.

The semi-circular canals should be allowed their full credit, but they can not be considered as the sole and essential organs. Gower's statement in regard to other than aural forms of vertigo is pure assumption if we accept the author's reasoning, and it seems very plausible.

The Surgical Treatment of Neuralgias.

Dandois (International Medical Magazine). "The seat of the neuralgia is almost always the ganglion from which the nerve originates; radical treatment and relief can only be secured by removing it. If sections and resections produce results, it is because they produce a reaction in the ganglion. This reaction is generally temporary, the ganglion and the fibers of the nerve that remain recovering, the pathological condition formerly present returning, and a second operation being necessary for a radical cure. Since the reaction is independent of the amount of traumatism, simple resections are better than excisions, as the peripheral portion of the nerve remains and ulterior interventions are easier. For the same reason, it is not essential to operate upon the trunk of the nerve, the reaction and effect on the pain can be produced by acting on the peripheral terminations. The action may even be on another nerve trunk that originates from the same ganglion. This possibility makes the removal of the ganglion unnecessary; it is a delicate and dangerous operation in many cases. A series of operations on peripheral fibres of various nerves arising from the same ganglion will produce repeated reactions and relief, rendering the removal of the ganglion itself unnecessary."

Medical College of South Carolina.

The seventy-first announcement of this old but modern school is out for the session of 1899–1900.

This well known school was founded in 1823, and with it has been associated such men in medicine as Holbrook, Moultrie, Dickson, Prioleau, Frost, Geddings, Gaillard, and many othersr

The course of lectures will commence October 2d, 1899, and end April 3d, 1900.

A regular four-year course will be required of all graduates, and every advantage is offered for the preparation of the physician for his work.

There is a well equipped College of Pharmacy in connection with the medical school. Dr. Francis L. Parker is Dean, No. 70 Hasell street, Charleston, S. C.

Eye Complications in Typhoid Fever.

The eye complications come on during the later stages of typhoid, and are due to the prostration and weakening of the system. Dr. Flemming, in the New York Lancet, mentions, accommodative asthenopia, sometimes true paralysis of accommodation with mydriasis. Ptosis, keratitis, abscess of cornea and choroiditis may be occasionally met with. Optic atrophy occurring after typhoid is perhaps of most interest.

Cases of embolism of the central artery of the retina during convalescence from typhoid fever have been reported; it is quite possible that the lesion in some of these cases was thrombosis instead of embolism, the ophthalmoscopic findings being practically the same.

Standardization Needed.†

The revision of the "United States Pharmacopœia," which is to be done next year, is a matter of sufficient importance to receive the serious consideration of the profession. The physician is the one who has the greatest interest in the reliability and availability of the products of the pharmacist. They are part of the tools of his trade and on their efficiency his success to a greater or less extend depends. It is a well-known fact that many of the crude drugs that form the basis of the pharmacopœial preparations are far from being as reliable as their proper medical usage demands. When such physiologically powerful drugs, for example, as colchicum, conium, hydrastis, hyoscyamus, and others may vary in their content of active principle 200 to 300 per cent. in different samples, as has been amply demonstrated by competent authorities, it would seem that something ought to be done to eliminate these fluctuations of the crude drug from the official preparations. If the latter are not uniform in medical potency, what confidence can be placed in them or in the pharmacopœia, which certainly ought to be a reliable guide for accurate dosage and medication?

It is true, the last edition of the pharmacopœia did provide standards for cinchona, opium and nux vomica, and the recently published "British Pharmacopœia" goes a step further and "standardizes" ipecac and belladona, but the principle has not yet been made to cover calabar, coca, colchicum, conium, gelsemium, hydrastis, podophyllum, stramonium or veratrum, to say nothing of important drugs such as aconite, cannabis indica, digitalis, ergot and strophanthus, which defy any and every chemical test thus far elaborated, and which, to be assayed at all, must be tested pharmacologically on the living animal.

It is, perhaps, demanding too much to ask the revisers of the Pharmacopœia who are soon to enter on their decennial task to provide standards for all powerful drugs, but it seems to be well within the bounds of the reasonable and moderate to urge the expediency of extending the principle of chemical standardization to all drugs susceptible of accurate chemical assay and also of adjustment, by chemical means, to uniform standards based on a fixed percentage of active principle or principles in the finished preparation. Surely, the physician has enough to perplex and baffle him in the idiosyncrasies of individual patients, and in the irremediable difficulties of diagnosis—may he not justly demand protection from the diseases which follows in the train of a weak, inert, unreliable drug product, or of a preparation possessing an unusual and dangerous potency? The golden mean between the worthless and toxic ought to characterize every fluid extract, solid extract or tincture administered in the treatment of disease.

The very general use of diphtheria antitoxin and the growing employment of an antitetanic serum for prophylactic purposes have acquainted the profession with the fact that the curative serums can be tested and standardized only by the physiologic method—by observing how much of the serum will preserve from sickness a test-animal into which is injected simultaneously ten times the fatal dose of the respective toxin. This is indeed a tedious, laborious, expensive and not absolutely uniform means of pronouncing on the exact strength of a given serum, but it is the only means available; there is no other, as no chemist pretends that he can test a parcel of antitoxin with his reagents. Every word of this applies with almost equal force to the testing of a limited number of powerful and important drugs like ergot, digitalis, squills, convallaria majalis, cannabis indica and strophanthus. The chemical test for these drugs and their pharmaceutic preparations is very unreliable, and unless they are tested by the pharmacologist, on the living animal, their administration is a lottery affording no guarantee of prompt reaction or final cure. This fact is notoriously the cause of the unfortunate desuetude into which ergot and cannabis indica have largely fallen. Lacking uniformity of action and failing often to yield the expected results, the pharmaceutic preparations of the

†Reprinted from the Journal of the American Medical Association, July 1, 1899.

market are wholly discarded by the disappointed practitioner. Professor Hare, in his "Therapeutics," ascribes the frequent failure of cannabis indica to the inferiority of the preparations encountered, and the worthlessness of much of the ergot on the market is beyond dispute, Witness also the report of Houghton[1], who pharmacologically tested six samples "supposed to be pure strophanthin;" one sample was *ninety* times as strong as another, and the remaining four varied between these limits of one and ninety.

If drug preparations can be make uniform in strength by the comparatively simple and inexpensive means of chemical assay, well and good, otherwise the physician has a right to ask the wealthy and prosperous manufacturer to apply the physiologic test to preparations whose activity can be gauged in no other manner.

Water as a Medicine.

In the Baillie Lectures recently delivered at St. George's Hospital, Dr. Howship Dickinson insisted on the important part played by water in man's diet (The Hospital June 24, 1899). It constitutes, he said, three-fourths of the solid textures and four-fifths of the blood. It is the indispensable vehicle of all the secretions and of all the materials which are introduced as food. We can, indeed, get on better without meat than without drink. The want of solids is mere deprivation, whereas the want of liquid is this and something more; for, by the lack of water, the escape of what the water should carry off with it is hindered, and the body becomes poisoned by its own products. Thus, when urea and the allied uræmic poisons accumulate in the body as the results of renal disease, water is the surest of eliminants. It cannot leave the body as urine without taking with it more or less of these accumulations. Dr. Dickinson has satisfied himself that the amount of urea excreted in renal disease is increased by the drinking of water in proportion to the amount of diuresis occasioned. One of the symptoms of some forms of chronic and permanent disease of the kidney, particularly of the granular kind, is that the urine is poor in quality, but excessive in amount. The patient is habitually athirst, and drinks abundantly of watery fluids. This may be distressing, but it is his salvation. If he be so ill advised as to greatly reduce his drink the urine too will diminish, and uræmia may declare itself. Again, in diabetes water washes out the sugar and the special toxic material—acetone, or whatever it may be—which the diabetic process engenders, and thus helps to keep the system clear of this poison. In treating this disease if water is stinted the danger is increased, and on the other hand not only may large drinking of water stave off diabetic coma, but this deadly condition may be suspended for a time by the copious introduction of saline solution into the veins. Gout is another disease in which it is probable that the elimination of the essential poison, be it what it may, is facilitated by water drinking and diuresis; and, as Dr. Dickinson add, "water can be obtained in perfection without going to Germany for it. As to the various minerals which the accidents of geology rather than any therapeutic purpose, have caused to be mingled with the water at various spas, "these admixtures may do good or may do harm, according to the state of the patient and the judgment of the medical adviser, but the *water* is generally of service, and it may often be a point of wisdom to drink this in its purity rather than sophisticated whether by nature or art."

1 Journal, Oct, 22. 1898.

The Urine and the Fæces in the Dissemination of Typhoid Fever.

Since typhoid is proven to be a constitutional disease beyond the shadow of a doubt, we will be on the lookout for the bacilli in all the excretions of the body. We would naturally expect to find them in the fæces, and they are also to be found in the urine in a certain proportion of cases. The Medical Record quotes Horton Smith from the Lancet, as saying that the bacilli may be found in the fæces up to the end of the third week, after that time they begin to diminish rapidly and in a very few days they can not be demonstrated by any of the ordinary means. The bacilli occur in the urine in 25 per cent. of the cases and in some cases in sufficient numbers to render the urine turbid. The practical importance of this is that we should be as careful in regard to the disinfection of the urine as we are in regard to the fæces.

The Oxygen Treatment of Wounds.

Stoker would have us believe that oxygen gas will heal a granulating wound very fast and surely. He reports some experiments in the Medical Press, abstracted in the International Medical Magazine, in which he shows that oxygen is as good for recent wounds, burns, etc., as it is for chronic ulcers and sores, the healing is very rapid and the skin formed is said to be almost physiologically perfect.

The Treatment of Heart Disease by Saline Baths.

Dr. Charles Lyman Greene ("Journal of the American Medical Association.") The effect of baths is more permanent than is that of the movements, but both should be used, the movements in the morning and the baths at night.

Cases best adapted to treatment:—It is admirably adapted to cases of incompensation of moderate severity where rest is not to be had, and to those severer cases in which rest and cardiac stimulants have proven useless or reached the limit of effect. The particular class of cases best adapted to treatment are the mitral cases, particularly those of regurgitation,even if very advanced, and all cases of slight incompensation, in which marked aterio-sclerosis and myocarditis are not present. In exophthalmic noitre, cases of functional irregularity, of geurasthenia, in all cases of anæmia, and in chronic rheumatism it is very useful.

Cases in which it has proven of little use:—In the writer's hands aortic cases, whether stenosis or regurgitation, have not as a whole yielded good results. No harm has been done, and many have improved, but the writer is not satisfied that the treatment is here of any decided value, and believes that simple rest and resisted movements are much to be preferred.

Cases in which it is contra-indicated:—These are aneurism,marked arterio-sclerosis, chronic myocarditis, and chronic Bright's disease; yet, while baths are in these cases distinctly dangerous and harmful, the movements may be decidedly beneficial.

Differential Diagnosis of Headaches.

Dr. Joseph Mullen (Memphis Lancet) says:

"Roughly speaking, there are about four pharyngeal conditions capable of producing headaches of such intensity as to draw the patient's and doctor's attention from the cause to the effect. They are adenoids, post-nasal catarrh, follicular pharyngitis, and enlarged tonsils. With the first and last you are very familiar—that is, adenoids and hypertrophied tonsils. The mouth-breathing, listless and dull facial expression so characteristic of their presence, so uniform are these, that they have become pathognomonic. The treatment calls for their removal. The headaches are usually dull, rarely sharp or excruciating, and are felt in any portion of the head. Like post-nasal catarrh and post-nasal enlargement of the turbinates, they may produce vertex head pain.

Violent Exercise and the Kidneys.

Whether albuminuria is always pathognomonic of some lesion of the kidney is still an open question. Professor Senator, according to the Medical News, advocates the existence of a physiologic albuminuria. This occurs directly after large quantities of some simple albuminold food, as white of egg, for example, has been taken or is noted after a heavy meal in which albuminous material has been plentifully consumed, followed by considerable physical exercise. But the learned professor so hedges about his diagnosis of a physiologic albuminuria with precautions against the possible existence of a pathologic albuminuria, as to make its significance of no great importance. The majority of the authorities on urinary diseases concede at once that albuminuria is always extremely suspicious, and practicaly always indicative of a kidney lesion.

It is interesting to note then the condition of the urine after violent exercise has been taken, violent in this connection being a very relative term and meaning rather unusual. For one who is unused to it, a spin on a bicycle somewhat more hurried and prolonged than usual may constitute violent exercise. It was first pointed out, we believe, by Senator that each unusual physical exertion was often followed, even in individuals who had no pathological condition of the kidneys, by albuminuria. In these cases the amount of albumin passed was easily discoverably by the ordinary tests. Then Chvostek in Vienna showed that severe physical exercise is not infrequently followed by the traces of blood in the urine, and occasionally by the occurrence of small blood casts as well as albumin. These disappear after a few hours and do not seem to of pathognomonic of any lesion of the kidney.

At the recent meeting of the American Climatological Association, Dr. Harold Williams, of Boston, in a paper on the effect of violent exercise upon the heart brought out incidentally some interesting facts regarding its effect upon the kidneys. In each one of some thirteen runners examined carefully after a twenty-five-mile cross-country race albumin was found in urine; in about one-half of the cases hyalin and even small granular casts occurred, though the urine had upon examination before the race been found perfectly normal. These abnormal urinary constituents disappeared within forty-eight hours, and the effect upon neither the heart nor the kidneys proved serious or persistent.

Whether the repetition of conditions that bring about such changes in the urine will

not eventually lead to permanent pathologic alterations of the secreting substance of the gland no one is prepared to say. It seems clear, however, that upon the already weakened kidney of a chronic nepthritic condition the call made by the necessity for the excretion of unusual amounts of the products of muscular metabolism can hardly fail to work serious injury. The advisability of extreme caution in this matter of exercise in cases of kidney disease is evident. In our day it is so common for patients to take the inconsiderate advice of friends and even to adopt certain notions of their own with regard to exercise that it would seem well to place before every patient suffering from nephritis the danger of unusual or prolonged exertion.

Treatment of Laryngeal Phthisis.

The treatment of this condition is chiefly local, according to Dr. Lake, abstracted in the Journal of Laryngology.

While general treatment was generally useless the author insisted upon an attempt being made to increase the resisting power of the system and to improve the quality of the blood whenever possible. Local meaures of most benefit are removal of diseased portions, cleaning up of ulcers, etc., by means of the curette, depletion of œdematous tissues by punctures; painting on or rubbing in of solutions, the injection of hypodermic, and intratracheal remedies.

In granular conditions of the vocal cords and in superficial excoriations or ulcerations nothing is so beneficial as intratracheal injections.

In cases of œdema and superficial ulcerations the use of drugs is confined to paints, scarification and, if necessary, the cutting forceps. Formic aldehyde or lactic acid should be used after every intra-laryngeal operation, no matter how small the operation.

Where there is mixed œdema and deep ulceration, use insufflations, and as the patient becomes tolerant treat the larynx with frictions of formic aldehyde.

The following appears to be the *modus operandi* of intratracheal injections, which have been in use by him at the North London Consumptive Hospital for three years. The contained antiseptic is of use; first, to sterilize the sputum on its way to and through the larynx; secondly, in surrounding the masses of sputum with an envelope of antiseptic oil, thus assisting it to pass over the already injured parts without inflicting further damage, and without causing irritation; thirdly, the larynx and trachea are provided with a protecting glaze, and at the same time concussion and bruising are diminished by the greater ease of expectoration; fourthly, when the cough is harsh, and there is but little accompanying secretion, the injections are distinctly sedative in their action. By thus allaying irritation the inflamed parts are kept at rest. This is as important a factor in this disease as any other. For like reasons one should prohibit much conversation.

The Signs of Epilepsy.

Epilepsy is a disease of the nervous system, the diagnosis of which is of importance, because of its being a predisposing cause of insanity, and also on account of the danger of injury or rupture of a blood-vessel during an attack. This disease according to statistics, occurs as frequently as one in two thousand individuals, and often is very difficult of diagnosis. Indeed, the epileptiform seizure may be so light that the sufferer himself is unaware of his infirmity. He may stop in the midst of conversation, be silent a short time, and then continue, unconscious that his talk has been interrupted. Then, again there is the nocturnal form. The subject may have attacks at night and awake in the morning unaware that anything unusual has occurred. The objective signs of this disease which might be revealed by close inspection are tremor of the tongue, which may also present sores resulting from biting during a convulsion, and hæmorrhage of the conjunctiva or muscles, particularly abdominal, due to rupture of small blood-vessels, as also malformations of the ears and skull, together with protruding underjaw.

Chills and the Mosquito.

It seems that the blame of carrying malaria is to be laid permanently upon the slender back of our singing friend of fishing days.

Recent investigations, as reviewed by Thayer, in Medical News, show positively that the mosquito can and does carry the infection from one person to another. Laueran, Manson, Surgeon Ross, Bignani, Grassi, and Bostianelli, have done much in tracing out the connection between mosquitos and malaria. Ross found in the stomach wall of mosquitoes, in infected regions, large pigmented bodies which likely represent the extra-corporeal stage in the life history of the malarial organism. The gray mosquito is the best carrier of the infection, as experiments with it have yielded the most certain results.

Stomatology at the Ameriean Medical Association.

Dr. Geo. V. I. Brown, of Milwaukee, has been chairman of the Section on Stomatology for the past two years. The address last year at Denver was very creditable, but the one delivered at Columbus was also good.

From the experiment of Dr. Williams, quoted in Dr. Brown's address, it seems that dentistry is keeping pace with the advance in medicine, and as the two advance together it is wonderful to see how they blend and commingle. The question of higher education for the dental student comes in for its share of notice, and Dr. Brown is sure that all will be well if the National Board of Dental Examiners and the National Association of Dental Faculties will only harmonize and work together. A very satisfactory plan is outlined in the address by means of which it would be possible to exchange licenses with neighboring States.

The address appears in full in the Journal of the American Medical Association for July 8th.

Incipient Insanity.

The detection of mental derangement in its beginning is exceedingly difficult and only by a most careful and painstaking examination can we arrive at any certain conclusion.

Dr. T. Outterson Wood in Treatment, to which he is contributing a continued article on The Earlier Phases of Mental Disease, says that the signs are those belonging to an impending nervous breakdown, occurs frequently in young people just over the age of puberty. They are restless, unnaturally sensitive, and self-conscious, at times forgetful and positively stupid. The sensitive nature usually dates back to early life.

Inability to concentrate the mind on any one subject and complete temporary arrest of mentation.

The condition is often attributed to laziness or lack of interest.

The patient converses in a nervous voice, fidgety way, gazing furtively about him, answers questions mechanically, a silly laugh, and very restless hands and fingers.

Family History will likely show some predisposition to mental disorder; better health when living out doors, a very defective memory, exaggeration of self-importance.

The cases are still on the sane side of the line, but are gradually approaching the opposite condition.

As causes, family history, lack of moral education, masturbation.

Treatment: Rest for the brain, improvement of the moral and physical health generally; give up at once all business and study; cheerful companions; pure air physically and morally.

No work until the brain is thoroughly rested.

But very little medicines are required, the less drugging the better.

Vicarious Urination from the Leg.

Dr. A. T. Rice reported, before the Ontario Medical Association, an almost unique case of a woman who was suffering from repeated attacks of cystitis accompanied by complete atony of the bladder. During the last attack the secretion of the bladder gradually diminished, but was compensated for by a transudation of fluid from the anterior portions of the lower limb, between the knee and ankle. This fluid was voided regularly three times a day, the average being 30 to 40 ounces daily. The fluid simply oozed from the skin without any abrasion being present. The patient would realize that the fluid was about to issue, and would place her feet upon a stool, with a vessel beneath the heels. The fluid was of an amber color, sp. gr. 1,010, had a strong smell of urine upon being boiled, with a distint ammoniacal smell after standing, and showed the presence of uric acid. As the attack subsided, this transudation suddenly ceased, and the urine began to pass through the urethra.—*International Medical Magazine.*

Double Chlorid of Gold and Sodium in Locomotor Ataxia.

Dr. J. C. Wilson, in a clinical lecture reported in the International Medical Magazine, showed a case of locomotor ataxia that had been under observation for one and one-half years.

When first seen he had an awkward gait, staggered in the dark, shooting and the girdle pains, no control over bladder, sexual power absent, had also specific history.

Rest was advised and 1-20 of a grain of the double chlorid of gold and sodium was given three times a day. Now he walks better, has control over his bladder, and a marked improvement in every respect.

Dr. Wilson concludes that the long continued use of alteratives is valuable in nervous diseases and syphilis, and the necessity of the long treatment should be impressed upon the patient.

More Verses on the Doctor.

The Australasian Medical Gazette publishes the following, according to the N. Y. Medical Journal:

DOCTOR—BY A DYSPEPTIC G. P.

(With apologies to R. K.)

I entered the profession, like other men, to live;
I've found how very few and rare the prizes it can give.
I've striven long from ill and death my fellow men to guard,
And many kicks, but ha'pence scant, received as my reward.
For it's Doctor this, and Doctor that, and "Doctor's gross mistakes,"
But it's "Run and fetch the doctor," when the little finger aches—
When your little finger aches, my friends, your little finger aches;
Oh, it's "Run and fetch the doctor" when your little finger aches.

We bolt our meals, we scamp our sleep, we little know of rest;
Through four and twenty hours we wait the club patient's behest.
You ring us up at midnight, you rush us all the day,
You wear our souls and bodies out, and then refuse to pay.
For it's Doctor this, and Doctor that, and and "What a monstrous bill!"
But it's "Doctor, won't you save her?" When the only child is ill—
When your only child is ill, my friends, your only child is ill;
Oh, it's "Save her, never mind the cost!" when the only child is ill.

We face the plague and pestilence, greet danger with a laugh;
We win our V. C's. day by day, and get repaid in chaff.
The very depths of human life, the foul and mean we scan;
But bitterest of all we find the ingratitude of man.
Oh, it's Doctor this, and Doctor that, and "lazy, careless brute!"
But it's "Noblest of professions" when the pains begin to shoot—
When your pains begin to shoot, my friends, your pains begin to shoot;
It's "Noblest of professions" when your pains begin to shoot.

You spend your time in idle talk, and pass the careless lie—
How that d—d doctor messed your case, and made you nearly die.
And everywhere you seek to do him all the harm you can.
And, vile traducer though you be, pose as an honest man.
For it's Doctor this, and Doctor that, it's charlatan and quack;
But it's "Skillfullest physician" when you're laid upon your back—
When you're laid upon your back, my friends, you're laid upon your back;
Oh, it's "Skillfullest physician" when you're laid upon your back.

The papers rave about our mission, which they call divine,
Or deprecate our selfishness because we dare combine.
The manna drops from heaven, they think, to feed us and our wives;
Our business not to save our own, but only other lives.
For it's "Sawbones this," and "Butcher that," and any other taunt;
But in the Valley of the Shadow it's the doctor that you want—
It's the doctor that you want, my friends, it's the doctor that you want;
In the Valley of the Shadow it's the doctor that you want.

Influence of Alcohol on Muscular Work.

Destree ("Quar. Jour. of Inebr.") has made a number of experiments to determine whether more work can be accomplished with alcohol than without it. The results obtained were uniform, and clearly showed that:

1. Alcohol has a favorable effect on the work product whether the muscle is weary or not.

2. This favorable effect appears almost immediately, but is very transitory.

3. Immediately afterwards alcohol has a very decided paralysing effect. About a half hour after taking alcohol the muscular power reaches a maximum that subsequent doses increase with difficult.

4. The paralysing eflect of alcohol outweighs the momentary stimulation, so that the total work product obtained with the use of alcohol is less than that obtained without it. In other words, alcohol is a deceptive means of dulling the sense of fatigue, but its action is momentary, and in the end injurious, the paralysing effect upon the nervous system increasing rapidly, and with such force that any momentary good effect cannot counterbalance it. Similar experiments with tea, coffee, and kola shows that the stimulating effect of these drugs, while less marked than that of alcohol, is continued longer, and is not followed by a paralysing effect, as is the case with alcohol.

The Treatment of Carbuncle.

Manley in Ind. Med. Rec., abstracted in International Medical Magazine, after criticizing both the excision of carbuncles and the conservative treatment by internal remedies and mild applications, proceeds to a discussion of a treatment which he has successfully employed in 50 cases during the past 5 years. The treatment consists of the injection into the carbuncular tissues of pure carbolic acid. In the beginning papule, 2 or 3 drops of an 80% or 90% solution will suffice; in the suppurating stage, 15 to 30 drops are required. The patient first experiences a burning heat, which is soon followed by a cessation of all pain. The acid blanches and chars all of the tissues and coagulates and destroys the purulent foci. The relief from pain is prompt and the patient's rest and appetite are restored. In no cases were toxic results from absorption of the drug noted. Injections lose much of their value when used late, although even then they will greatly relieve pain and check the disintegrating processes. The affected area should be cleansed, the surrounding skin protected from escaping acid, the skin sprayed with ethyl chlorid and a long, strong hypodermic needle thrust down to the base of the carbuncle. But one puncture through the integument is needed, the needle being partially withdrawn and then thrust in different directions. Care is necessary to avoid injecting directly into a large blood-vessel, or injuring a nerve trunk. When multiple pustules are present, the phenic acid injections entirely dispense with the need of incisions for the relief of tension and for drainage. One injection, as a rule, suffices for a cure, although a second or third is occasionally needed.

Bright's Disease and the Bacillus Coli.

Nephritis is something we do not know much about, we can talk all day about it, but when it is all boiled down there remains hardly a grease drop. This state of our knowledge, however, acts as a stimulus to the investigators, and Dr. Nichols in the Montreal Medical Journal, attempts to throw some light upon this subject. In the acute form the cause is "toxins," but in the chronic form we don't know. For this lack of knowledge Dr. Nicholls would put in the Bacillus Coli, present in various gastro-intestinal disorders, getting access to the kidney.

This theory will perhaps do as well as any other so long as there is no certain knowledge.

Epistaxis.

I have been reading an article from the pen of Dr. Cornick, of Texas, on Epistaxis. He says: "Recurrent or prolonged nose-bleeding occurs sufficiently often in general practice to occasionally prove a nightmare to those practitioners who must rely upon the means of checking it which are recommended by most authorities." He then speaks of strong astringent injections—plugging the nares with absorbent cotton. If these fail, his last resort had been plugging of the posterior nares with Bellocq's canula, but he had found the best and safest remedy was to cut a piece of sponge long enough to meet the requirements, thoroughly wash it, squeeze out all the water, and insert its full length, gently, along the floor of the bleeding nostril.

It is said that necessity is the mother of invention, so I will give you a case that caused me to use means I never had seen used, or ever read of being done. I was called to see a man, some twenty miles from my office, who had been bleeding for two days and nights. He was very weak, and still bleeding. Every thing had been done for him, by his physician, that is usually recommended, with no beneficial effect. I had them to catch a chicken, take out its entrails, and wash thoroughly a piece about six inches long. I tied one end and ran it through the naris to the mouth. I then took a syringe filled with ice water and injected it full, making pressure all the way, which stopped the bleeding at once. I tied the other end, removed the syringe, and when I supposed the water might be getting warm I let it out, and again filled the gut with ice water. He bled no more. Soft catheters were not then invented, but now that we have them I should try one of them, cutting off the end entered, and tie it as in the case named. As a styptic I have found nothing better than sulph. copper, 3 grs.; sulph. acid, 20 drops; aqua 3i. Sig.: 20 drops every hour till bleeding ceases.

J. A. Reagan, M. D.

Weaverville, N. C.

Cholera Infantum.

David Coleman, M. D., Tottenville, S. I., Sept. 17th, 1898, reports the following case:

"On July 1st last, was called to attend a baby suffering from Cholera Infantum in advanced stage. I had little hope of saving the child; at once put it on teaspoonful doses of Glyco-Thymoline (Kress). It stopped the vomiting and corrected the bowels—a rapid recovery resulted."

The Serum Treatment of Puerperal Fever

Since the treatment of diphtheria has turned out so well by the use of serum, we have, perhaps, been expecting too much in other diseases.

In child-bed fever the anti-streptococcic serum should be a specific, but it is not. In a few cases it did seem to be all that one could wish, but lately it is being slowly abandoned.

A probable cause of this failure, as suggested by the Medical News, is that the streptococci are not all of the same species, and that even if they were, puerperal fever is not always caused by streptococcus infection. These two facts will explain all of the failures with antistreptococcic serum.

The editor suggest the diphtheria bacillus as a causal factor in some cases and the likelihood of the bacillus coli communis taking part in uterine infections is far from an impossible suggestion. The demonstration of the bacillus coli in the process would be extremely important since recent work in France and Italy has shown that the manufacture of a serum which is protective against its infection is possible.

As to unity of species of all streptococci, that is largely an exploded idea. The hope of securring a specific serum depends on our finding some method of surely distinguishing the various forms of microbes that grow in chains. The prospect of successful serum-therapy of puerperal fever, then, depends on a more exact knowledge of the etiology of the disease. In order to bring this about a large number of careful observations will be necessary. The aim is well worthy of the humanitarian sacrifice of time and labor on the part of every one interested in the reduction of mortality among the mothers of the land.

Diet and Dystocia.

The matter of diet during pregnancy is now receiving much attention.

Since Prof. Schenck elaborated a method of feeding by means of which the sex of the child could be determined at will, a great deal of study has been given this really very important measure.

In the International Medical Magazine for July Dr. Preble gives an interesting review of the work of Prochownick which antedated the investigations of Dr. Schenk by several years. Prochownick was in search of a substitute procedure for premature delivery in narrow pelves. This he found in the way of diet, not starvation, but simply to keep off an excess of liquids and fats which are by no means indispensable to a healthy child. Water, soups, potatoes, cereals, sugar and beer are to be entirely avoided for the last two months of pregnancy. Fluids per day are limited to 12 to 15 ounces of red or Moselle wine.

On looking carefully into the subject Dr. Preble found that even Prochownick had been anticipated by Rowbotham, a chemist of London, who, impelled by two dystocic labors of his wife, placed her upon a strictly fruit diet, such as apples, oranges, lemons, and grapes; the labor which followed was easy and normal. However, this plan of Rowbotham is simply a modified starvation, and should not be compared with the scientific method of Prochownick. It would seem that the prevention of dystocia is very much better work than seeing after the particular sex. Horn's article on "Success of Prochownick's Diet in Narrow Pelves," in the *Monats. f. Geb. u. Gyn., VIII*, gives the results in 44 cases in which *not a mother or a child was lost.*

As a practical thing, one great difficulty in the way of carrying out this plan of treatment, is the custom, handed down from our forefathers, of allowing the pregnant woman to eat anything she craves, be it salty mackerel, cucumber pickles, lead pencils, or red clay, but it does seem that we should give the plan a trial, as it only lasts for two months and nothing absolutely necessary is withheld.

The Colorado Practice Laws.

Our western brothers are very much to be sympathized with just now. The physicians of Colorado, after faithfully working for the passage of a very practical and common sense Practice Law, and even after having succeeding in getting it through both branches of the Legislature, had their work rendered null and void by the veto of the Governor.

Governor Thomas has, by this senseless exercise of his power, ingloriously covered himself with the abuse of the decent and sensible people of his State.

We hardly realize how much we have to be thankful for in North Carolina until we look at some of our neighbors.

Some of the roads in our State are very hilly and the nights are very dark, and at times the weather may be a little warm and some bills awfully hard to collect, but we should thank our State Society, our Legislative Committee, our common sense legislators, that we have not Christian Scientists, Osteopaths, and what nots, in absolute possession of our country, with none to molest or make them afraid.

The Denver Medical Times closes an

editorial on the Colorado situation as follows:

Now, what does our noble and high-minded executive hope to gain by the veto of the medical bill? These are some of his great expectations: The uncertain support of the quack-supported newspapers, none of whose candidates for mayor was successful at the spring election; the brotherly esteem of every mountebank in Colorado, including the large additional number whom the governor's recent welcome address will draw to the State within the next two years; the affectionate regard of every worn-out prostitute, posing as a magnetic healer; the fraternal love of all the bigoted old pharisees of "Christian Science," who are making the Scriptures a stalking-horse for private greed; in short, the political favor and assistance of ignorance and imposture in general, especially those phases which fatten on bodily ills.

Gov. Thomas does not dare to say that the bill he has vetoed would not have been an improved protection to the public health. Instead of this, he maintains it is better for quackery to ramp and for fools to be duped and even done to death than to raise the standard of a profession which has more to do with the weal of mankind than all the others combined. He derides the medical profession and adds insult to injury, yet he will seek to tear it down rather than to make it better. He has vetoed a measure the like of which has proved acceptable to the people of thirty-one States and Territories, none of which, perhaps, had a governor like ours, however, with a brain more massive than the combined intellect of the whole legislature.

Will the decent and sensible people of the State uphold his excellency in sanctioning dense ignorance and blatant quackery and the obtaining of money under false pretenses? We think not.

The Relative Curability of Nervous Diseases and their Therapeutic Indications.

The relative curability of any given nervous affection is based upon the accuracy of its early diagnosis. To this end there should be an accurate scientific classification of diseases of the nervous system, dividing them into two great classes, organic and functional. In the cases covered by the first class the nervous elements are not, as a rule, primarily affected, but are so secondarily. As to the second class, the chief lesions affecting the nervous apparatus can be arranged under six groups, namely, vascular, inflammatory, degenerative, toxic states, congenital malformations, and functional or unclassified lesions. In the last group are included hysteria, chorea, neurasthenia, paralysis, catalepsy, epilepsy, etc., and by reason of the purely subjective character of their clinical phenomena, their diagnosis is often very obscure and misleading. The statistics and authorities as to epilepsy, for example, are utterly at variance. It is highly desirable that a text-book authorized by this or some competent association be furnished the medical profession in which is set forth reliable data based on actual facts as demonstrated by practical clinical observation and experience in order to prevent the fraud and deception now practised on the helpless neurotic incurable by those claiming to have a "sure cure for fits."

‡Abstract of a Paper Read Before the Columbus Meeting of the American Medical Association by Dr. John Punton.

Medical Department of the University of Nashville.

Among the medical schools of the country none stand higher than the University of Nashville; established in 1850 it has over four thousand alumni scattered throughout the country. The college building is a very handsome structure of brick and stone, the different laboratories are very conveniently situated and completely furnished.

For graduation a four-year course is required, and instruction in every department is thorough and comprehensive.

Dr. James M. King is Secretary of the Faculty.

Nashville is rapidly coming to the front as one of the educational centres of the country, and no one will be disappointed in going there for medical education.

The Uterine Curette.

The curette hardly recovers from one blow until it is hit between the eyes again. That it has a certain definite place in the treatment of uterine disease can not be disputed for a moment, but its careless use in conditions in which the uterine wall is soft and friable can not be too sharply condemned.

Robinson, in Milwaukee Medical Journal, as abstracted in International Medical Magazine, says that the sharp curette has absolutely no place in the treatment of abortion, miscarriage, labor and infected uterus. The first danger is perforation of the uterus. The curette may convert a salpingitis into pyosalpinx.

We should all be careful with the sharp curette, as we should be with other very useful instruments.

Sleep in the Treatment of Disease.

Dr. Wm. Evart (British Med. Journal) discussed this subject at a recent meeting of the Harveian Medical Society. He said:

"Sleep has two offices, both fulfilled in the long sleep of the night, which it is our usual endeavor to secure for our patients—namely, that of favoring the slow changes of repair, and that of interrupting consciousness by uncoupling the chain of neurons, or by relaxing protoplasmic tension or tone. This relief of tension is, it would seem, the only office performed by the shorter spells of sleep, and therefore the two forms of sleep suggest two therapeutic objects. The night's sleep which comes without any drugs may need to be bettered, and in improving the quality of spontaneous sleep our help is often of value. It might also need to be prolonged.

"The systematic prolongation of sleep for the cure of disease is one of our opportunities hitherto little used. In chorea, sleep entirely subdues the muscular agitation, and this observation has led to the attempt to arrest the disease by prolonging sleep for considerable periods. A complication arises in connection with alimentation which in this disease, as in most other nervous troubles, is of primary importance. Partly for this reason, and because more than rest may be needed for a cure, the results hitherto reported have not sufficiently recommended the method.

"Prolonged narcosis has also been suggested in excessive wear and tear of the nervous system; and in various nervous affections, including the mental, its renewed trial, combined with suitable methods of feeding, might lead to encouraging results.

"Best suited, perhaps, to our every-day needs is a systematic resort to the shorter sleep. Like the light installments of food which restore the lost function of appetite and digestion, short sleep in the day may be essential to the cure of nocturnal insomnia. Our growing wealth in hypnotics warrants a hope that a suitable agent may yet be found which in that direction would minister to the health of the invalid, and might command the luxury of sleep at any opportune time for the convenience of the worker.

"Body rest as a systematic therapeutic agent has long found its place in our treatment for patients whom weakness alone, in the absence of medical advice, would not have compelled to take to their bed. To that class belong the frail women in whom the debility of anemia, of dyspepsia, and of overfatigue develop symptoms often mistaken for hysteria. Rest in bed is their first need. In the treatment of chlorosis this is now recognized as the essential element for a rapid recovery. Its methodical employment forms an essential part of the open-air rest cure for phthisis, which within quite recent years has largely replaced at foreign sanatoria the previous method by muscular exercise."

The Surgical Treatment of Tuberculosis of the Lung,

Dr. Turban describes (Medical Review) a case where, under surgical treatment by means of resection of the 7th, 8th and 9th ribs, the diseased lung being thus mobilized, the pathological process was brought to a standstill. There are certain cases of tuberculosis of the lung which show a tendency to shrink and to the formation of scar tissue, but this tendency can not act to sufficient advantage because the thorax is so large and well built that it does not permit of the decrease in space of its interior. Experience has taught that often in just such cases of well built and powerful chests the process of lung destruction is more malignant than in those cases where the thorax is smaller and weaker. In the case described the result, while not being a perfect cure, yet allows the patient to be active and busy. The following indications for the operation is suggested by the author: In a practically small number of cases of complete, or almost complete, affection of one side when the other lung is in strong and normal condition, this operation may prove of benefit, provided, after long observation of the case, a tendency to skrinking with a good resistance power but an inelastic thorax has been observed.

The Treatment of Pneumonia.

Hare says, when called to care for a patient through an attack of illness, especially pneumonia, the physician should be a watchman all the time, and a therapeutist only when necessity arises. In all infectious diseases, especially croupous pneumonia, the patients may be divided into three classes: (1) Those who are so mildly ill that all they need is good care and little or no active treatment; (2) those who are so ill that nothing can be done which will bring about cure; (3) those cases which lie between the two, and which are capable of cure but only when the individual is aided by the most skilful treatment. As to the use of the abortive treatment by the use of bleeding or circulatory sedatives, such as aconite and veratrum viride it is evident that few patients can receive this treatment

because only a few patients have a sufficiently bounding pulse to justify its use, and few are seen early enough to be benefitted by it. When consolidation has taken place one should attempt to prevent the hyperpyrexia by cold sponging with friction, and the use of the ice-bag over the heart and to the head. Ice to the precordium slows the heart and protects it perhaps from the ill effects of the feves. Ice to the head diminishes the pain and keeps the mind clear and controls the temperature. The antipyretic drugs are of use in that they allay nervousness, and not because they reduce the fever. If any one is tempted to give a patient stimulants, and before doing so feels his own pulse he will sometimes be surprised to find that his own is the weaker. Digitalis often fails as a stimulant because it loses much of its regulating power over the heart in the presence of high fever. It acts better when the temperature is reduced by hydrotherapy. If the pulse be gaseous and relaxed belladonna in 5 to 10 minim doses, every four or eight hours, may be useful. Strychnin goads the system to increased endeavor, and is especially of use when the patient seems to be sinking into the slough of death. The value of nitroglycerin seems to be in direct proportion to the degree of arterial tension. The value of oxygen is problematical. This disease cannot be treated by any routine method.

Uterine Hæmorrhage as Affected by the Climate of Altitudes.

Septimus Sunderland (The Hospital) calls attention to the strikingly beneficial, though temporary, effect of a high altitude in three cases of obstinate menorrhagia under his care, and he thinks it is a question whether residence at a high altitude should not be recommended in certain cases of chronic uterine hœmorrhage when ordinary methods of treatment, including curetting, are of no avail, and in which it is important to check the hæmorrhage in order to spare the patient the more serious operation of extirpation of the ovaries or of the uterus. There are many cases of uterine hæmorrhage in debilitated subjects, especially from fibroids, in which the risk of a major operation is dreaded by some surgeons as much as by the patient, and it is for such that Sunderland would advise residence at a high altitude. In selecting such a place, an elevated region with a low mean temperature should be chosen, where the air is as free from moisture as possible, and the soil well drained and dry, for in addition to the low temperature as a factor in the diminution of the flow, one must conclude that the dry, tonic, and bracing climate has a beneficial effect by improving the general condition of the patient. Possibly this bracing effect may also act through the nervous system, controlling and regulating menstruation. He thinks that the low pressure of the atmosphere at these altitudes may be an important factor in the prevention of certain hæmorrhages from the uterus, due possibly to the diminution in weight of the super-imposed column of air on the surface of the abdomen. In the lungs it may act by lessening the pressure on the internal abdominal organ and large veins, thus making a more free flow of blood throgh the large veins and portal system, and diminishing uterine congestion.

Sarcoma of the Naso-Pharynx.

Dr. D.D. Heugst (Journal of Laryngology). Sarcoma is met with more frequently in the naso-pharynx than carcinoma. Up to 1889 Bosworth has collected nineteen cases of sarcoma which appeared in the naso-pharynx. The disease appears earlier than carcinoma. Ten of the above cases occurred between the ages of one and thirty years; and of the ten, five were between ten and twenty years. The male gender was more frequently attacked in the proportion of one to three.

The character of the secretion is somewhat diagnostic. It is of a sero-mucous character and quite ichorous and offensive. Epistaxis is often present. The general health is naturally much impaired, though no special cachexia is seen.

Difficult deglutition and dyspnœa, with impaired hearing, all depend upon the size of the growth. The origin of the tumor is usually from the basilar process of the occipital bone, beginning in the deeper layer of the mucous membrane lining the pharynx, and growing in the form of lobulated rounded growth. Infiltration extends in all directions. The colour of the growth depends upon its vascularity and composition. The only positive way we can reach a diagnosis is by microscopical examination of a section.

Carcinoma is usually more firm to the touch. Enlargement of the cervical glands generally occurs early in pharyngeal malignant disease, and is observed in about one-third of the cases.

The earlier in life, the more rapid the course of a sarcoma. A small round-celled tumor runs a much more rapid course than a spindle-celled variety. A mixed growth grows less rapidly. Generally the prognosis is exceedingly unfavorable.

The author prefers the cold snare in removing the tumour, and slits the palate, if necessary, to get at the growth. In using the cautery snare there is danger of exciting inflammatory reaction of a severe character in the surrounding healthy structures.

The external operation should only be performed when all other means are out of ths question, and it gives promise of prolonging the life of the patient, if the patient's condition is fair at the time of operation.

The Demonstrations of Methods in Gastric Therapeutics.

Turck (*Lancet*, abstracted in International Med. Magazine) demonstrated, at the St. George's Hospital, London, several of his gastric instruments, notably, the gyromele, or revolving sound, which he claims to be especially useful both for diagnostic and therapeutic purposes. By means of this instrument, it is possible to determine with practically absolute certainty: 1. The exact out of the stomach on the abdominal walls, the greater curvature, the lesser curvature, the fundus, and the pylorus. 2. The character of the stomach walls: (*a*) Any considerable thickening of the walls is unfailingly discovered because of the varying ease and plainness with which the sponge revolved against the wall can be felt on the outside; and (*b*) the distensibility of the stomach can be more readily and more accurately determined by simply using cables of different degrees of flexibility than it can be determined by any other method. From its distensibility the motor power can be quite accurately estimated in cases where there is no pyloric obstruction, as has been repeatedly found by experiment. The pyloric obstruction, if present, is discovered in the process of the sounding of the stomach, pylorus, and duodenum. 3. In addition to the above complete diagnosis of the physical condition of the stomach, the gyromele has been found to be an unfailing means of discovering atrophy, and, indeep, of distinguishing atrophy from functional achylia. This is due to the fact that the revolving sponge is quite as effective as any test meal for stimulating the secreting glands to almost immediate activity. On withdrawing the cable, the sponge is found saturated with the gastric contents, and this furnishes material for bacteriologic and qualitative chemical tests. If the gyromele is allowed to remain in the stomach for a few minutes, the contents will, within 15 minutes, invariably contain HCl, unless there be atrophy of the HCl secreting cells. In order to thus determine with certainty the presence or absence of cellular atrophy, the gyromele is revolved a little longer than usual, and the stomach contents are examined about fifteen minutes after the withdrawal of the gyromele cable. The contents will then invariably contain hydrochloric acid, unless there be glandular atrophy. Its therapeutic valve resides in the removal of mucus and stimulation of the stomach walls. The intragastric reagent capsule and the intragastric resuscitator were also fully described and their usefulness demonstrated.

Professor Kocher of Berne.

Professor Kocher's operating room is nearly all glass, according to Dr. M'Elwee in Journal of Orificial Surgery—three sides and the roof—the light being regulated by outside curtains. The floor is granatoid and is flooded with water all the time so that gum shoes must be worn. Dr. Kocher cleans his hands with plenty of soap in running sterile water, and finally in alcohol, having an idiosyncrasy against bichloride and carbolic acid. He uses ether as an anesthetic; wears white lisle thread gloves, which are changed frequently during the operation. His apron sleeves are long enough to allow buttoning at the wrist and he wears a tight fitting sterile cap.

Treatment of Asthma.

Martin says that in uncomplicated asthma sedatives will cut short the attack, such as the hypodermic injection of morphia (one-sixth to one-quarter grain), the administration of chloral, or the inhalation of chloroform (The Hospital, June 17, '99). The effect of the last-mentioned is evanescent. Inhalation of nitre and other prepared powders is a popular remedy, but harm is often done by their indiscriminate use, as they predispose to the supervention of bronchial catarrh. Of remedies which may be continuously used, arsenic and iodide of potash are the most useful. Stramonium sometimes leads to paralysis of accommodation of the eyes, and some patients, especially those of a highly neurotic temperament, are peculiarly susceptible to it. Doses of even one-sixteenth grain of the extract will occasionally produce dryness of the throat, and a state of nervous excitement. Local conditions sometimes act as peripheral irritants in cases of asthma. The presence of a watery or mucoid discharge from the nose in cases of asthma other than hay athma is not uncommon, but is not always associated with serious local disease. In such cases the insufflation of a solution of bicarbonate and chloride of sodi-

um is often of much service, and the application of cocaine sometimes helps to relieve. Application of the cautery in some cases relieves hay asthma. Removal of large tonsils or adenoids in children does not of itself cure the asthmatic attacks· The removal of a nasal polypus may greatly lessen the attacks, but not a few cases persist after removal.

Diet needs regulating in many cases, especially where regular attacks occur after meals. Foods should be very digestible, taken mostly in the earlier part of the day, and in moderate quantity. The patient should not, however, be starved, and indeed codliver oil often does great good.

Maltine with Creosote.

The study of infectious disease received a new impetus and was placed upon a new basis when the agency of bacteria in its production was discovered. The efforts of clinicians were then directed to the influence of remedies upon the parasitic and living causes of disease. The great *desideratum* was to find substances having the power either to destroy microbes or to neutralize the noxious products which they elaborate. In the course of such experimental studies, however, we were led to realize more forcibly than ever before the resistant powers of the human organism. It was learned that it is not the mere presence of bacteria within the body that is the most significant fact, but their germination, reproduction, and cultivation, and, above all, the poisonous products by which the infection of blood and tissues is accomplished. Thereafter the fortification of the organism acquired fresh importance. The attention of physicians was directed not only to the destruction of micro-organisms and the neutralization of their poisons, or toxins, but also to the assistance of the tissues in their struggle against the invaders.

As long as, by any and every means, general nutrition can be maintained at the normal standard there is little to be feared from the presence of pathogenic bacteria. If, however, the general vitality be reduced by any cause, our diminutive foes can then not only enter, but can contaminate the system.

These discoveries have thrown new light upon the operation of many medicinal snbstances, and have served to direct our energies to the support of the threatened organs and tissues. A nutritious principle which is so influential in promoting the digestion of one of the great food-groups—viz: the carbohydrates—has a wide range of applicability. It adds to the nourishment of the feeble. It restores digestive power and physical energy to those who have been notably reduced by a lingering illness. It promotes the healthy growth of muscular structures and strengthens the functions of secreting glands.

Accordingly, skillfully prepared and reliable preparations like those of The Maltine Company, have long been favorably known to and beneficially employed by physicians in the large class of morbid conditions in which they are indicated. Several active remedies or combination of remedies have from time to time been added to the plain Maltine in order to adapt it to a wider field of usefulness. The latest of these excellent additions to a worthy line of products is Maltine with Creosote.

In the purely medicinal, as distinguished from the climatic treatment of tuberculosis, creosote has proved itself as a remedy of the first rank. It undoubtedly possesses a considerable inhibitory influence over the development of the bacillus tuberculosis. It relieves the prominent symptoms of phthisis more effectually than any other remedy. Creosote is often able to hold this destructive malady in abeyance for an indefinite period or practically cure the disease. Therefore a combination of Maltine with Creosote appeals most powerfully to the medical profession. So much of the physician's work has to do with tuberculosis in its varied manifestations and localizations that a warm welcome will doubtless be extended to this new preparation. Its nutrient and antiseptic properties render it admirably adapted to fulfill many important indications. We are assured that the creosote contained in this preparation is perfectly pure, and we have learned by painful experience that there is a vast difference between pure and impure creosote. Each fluid ounce of Maltine with Creosote contains 4 minims of pure creosote. Creosote is an efficient remedy in many morbid conditions of the intestinal tract, and this new combination will, consequently, be found of service in many cases of chronic indigestion.—*The Monthly Cyclopædia of Practical Medicine, Philadelphia, June, 1899.*

Intragastric Nippers.

Turck, of Chicago, has devised a small instrument by means of which small pieces of the gastric mucous membrane can be removed for microscopic examination, says the International Medical Magazine. It consists of pinchers, which can be protruded through the end of a stomach tube and closed upon a fragment of tissue.

Administration of Thyroid Glands.

In organotherapy, as in serotherapy, the extreme limit of reason and common sense was soon reached and passed in the useless endeavor to provide an extract of every organ and tissue of the body.

But when the flood of mixtures has receded somewhat, we will find that real progress has been made; that the clear river of genuine therapeutical agents has been added to and strengthened by another spring.

Even now we may lay our hand upon the use of the thyroid gland in the treatment of disease and say positively, this will abide, being real and having whereon to stand. The thyroid gland as we learned long ago is ductless in man, however, in some of the lower animals it opens by a duct directly into the pharynx, and in man the foramen cæcum of the tongue is the remains of the opening of the duct in the embryo.

So far then from having no function we must consider the ductless gland as being one step higher, in the stairway of development toward perfection, than its cousin and his canal.

That the secretion of the thyroid is taken into the system, and that it is essential to the normal condition of the individual, have been settled beyond any question. The lymphatics have been shown to be the channels through which the secretion reaches the blood. One point remains in doubt, it cannot be demonstrated whether this secretion acts as an antitoxin or as a stimulator of metabolism, it is possible that it does both. At any rate, the presence of the thyroid secretion in the blood in certain daily amounts is indispensable in the normal growth and development of the individual, otherwise we have in the child, cretinism, and in the adult, myxœdema.

The active principles of the secretion have so far escaped detection, the proteids are likely the basis, judging from the report of examinations. Watkins says that he has isolated thyreoproteid from the gland and that it is the active principle behaving like an enzyme.

Gourlay found a nucleo-proteid containing phosphorus.

All that we may say certainly is that the secretion is a very complex body and that by gastric digestion it is split up into two parts, one of which is a proteid containing small amounts of iodine, having but slight physiological action, the other is a non-proteid containing a larger quantity of iodine and all the phosphorus of the original secretion, this latter part is much more active in removing symptoms due to loss of the thyroid secretion than the proteid portion.

There are three diseases of the gland which may cause primary myxœdema in man, syphilis, actinomycosis and fibrosis, but if these diseases be successfully treated, the gland recovers its secreting powers to a sufficient extent to cause the myxœdema to disappear. In case the gland is not secreting a normal material, or if it is not in sufficient amount as evidenced by the general condition of the patient, the administration of the extract is indicated. It has been shown to be a specific in cretinism and myxœdema the well known symptoms of which are,arrested bodily development, idiotic expression, swelling of the subcutaneous tissues, scanty hair. dry skin, deficient mental capacity, protuberant abdomen, lordosis, etc., these all disappearing under thyroid treatment.

In the treatment of several other conditions, the extract has been recommended, as uterine fibroids, carcinoma of the mammary glands, amenorrhœa when associated with obesity, psoriasis, certain forms of insanity, ununited fractures, chlorosis, gout, rickets, diabetes. and many others, but it is perhaps safe to say that the extract is only valuable when the disease is caused by, or complicated with,a deranged thyroid gland.

An excess of the thyroid secretion in the system can not be said to have any marked beneficial effect, so that in order that the artificial secretion may have a decided curative effect, the natural secretion must be scanty or abnormal in quality.

In regard to the administration of the thyroid gland, there are two important points, the character of the preparations and the regulation of the dose.

The character of the preparation includes form and maker, the weight of authority is in favor of dessicated thyroids in fine powder, representing the entire thyroid gland, made from selected, fresh material, as the proper form.

The maker should be one possessed of all the facilities for procuring fresh healthy glands of the sheep in abundance and all the necessaries for its proper and careful handling and preparation. Armour & Co., of Chicago, can be said to possess all the requirements and they constitute the type of the maker.

In using their dessicated thyroids we do not have to consider inferior quality or septic material.

The dose is far from being the least important point and the physician should be careful and exact in his administration, especially in advanced cases of myxœdema.

The pulse and weight of the patient are the two gauges upon which the doctor must keep his eyes. He should begin with 2

grs. of dessicated thyroid three times daily, after meals, and gradually increase.

The patient during the treatment should have a fair appetite with a sense of well-being, stimulation of the cerebral faculties, there may be some constipation, the urine should show no abnormality.

So that the word over-sight being always connected with the dose, the administration is easy, safe and productive of decided beneficial results in appropriate cases.

A Doctor in Trouble.

We notice from the daily papers that Dr. F. D. Kendall, of Columbia, S. C., was publicly horse-whipped in the court house of his town. It seems, as claimed by Campbell, who did the horse-whipping, that Dr. Kendall got up a conspiracy to damage him and his family by allowing Mrs. Kendall's diamonds to be stolen and then putting the theft, etc., upon Campbell.

The doctor as a result has a scar on his face and a number of stripes on his back.

Doctors are only human after all, and when they do get into devilment they get in up to their neck. The newspaper account of this occurrence is not at all complimentary to Dr. Kendall. A very sensational trial is now in sight and the name of a doctor will be trailed around in the mud and filth to the vast delight of the newsmonger, but to the infinite harm and hurt of the doctor's name.

Strawberries in their Relation to Gout.

The above thought regarding idosyncrasies against certain articles of food will bring to mind also the effects of the toothsome strawberry, in some cases, a goodly number being individually unable to eat the strawberry on account of its resulting in a distressing uticaria or some other rash upon the skin. Where such is not the fact however, there is no healthier article of diet than the strawberry. I have been sure for a long while that it has been wrongly prohibited as an article of diet with victims of gout (Medical Mirror). The cruel medical tyranny which banishes the strawberry from the diet of the gouty and quotes what Linnæus had to say about the curative properties of this delightful fruit. This great naturalist was persuaded to take strwberries during a severe attack of sciatica with the result that a sweet sleep ensued and when he woke the pain had sensibly subsided. On the next day he ate as many strawberries as possible, and on the following morning the pain was gone and he was able to leave his bed Gouty pains returned at the same date in the next year, but they were dispersed as soon as Linnæus was able to get strawberries. Although strawberries are forbidden to the gouty by some authorities, by others they are permitted, the fruit being regarded as useful food for gouty persons on account of its richness in the salts of potash, soda, and lime, and its cooling diuretic and laxative qualities. The analysis of the strawberry shows it to be particularly rich in sodium salts and in spite of the high percentage of water this fruit excels all other common fruit in the amount of mineral salts. The chemistry of the strawberry therefore would teach that this fruit is likely to be beneficial in gouty states.

According to my observation the strawberry is a most excellent diet for gouty victims and so, too, are nearly all the other berries.

Salicylic Acid in the Treatment of Pneumonia.

Dr. W. C. Sebring (N. Y. Med. Record) believes that the results of the administration of the salicylate are these:

1. In the beginning of an attack it quickly quiets the tumultuous pulse.

2. It acts as a sedative to the general nervous excitement that is prevalent through that period; indeed, it seems to act as an hypnotic all through the course of the disease in many instances, as a fair proportion of the patients have slept a major part of the time until recovery had become well established.

3. It almost surely and quickly gives relief from the pleuritic pains.

4. It seems to inhibit the manifestations of malign mental symptoms. Thus far none of the patients have developed the least delirium after beginning to take the drug, except the first, and five cases of drunkard's pneumonia, in which the delirium preceded the disease.

5. The pulse remained full and not overrapid to the end, except in one case; cardiac symptoms due to the disease itself have been unnoticed, and symptoms of a "tired heart" do not often occur.

6. After the first few doses of the drug the patient will perspire freely, as long as the diseased condition of the lung persists, but either from this cause, or from some other that the author is not cognizant of, the temperature seldom exceeds 103 degrees F.

7. The cases will show a far smaller percentage of complications than is usual.

8. In nineteen out of twenty cases the disease will subside by lysis.

9. The length of time required for recovery is less than is the rule with patients that recover under the usual treatment and by lysis.

10. The infected lung tissue progresses to resolution more slowly than it does with the average case, though complete recovery from an attack—that is, return to normal health—is more expeditious.

The Indications for Chloroform During Labor.

Bacon (*Northwestern Lancet*), states that the sanguine diathesis gives patients who are usually large and florid, with muscles that are well developed. Arterial tension is high, and as age advances the heart has a tendency to hypertrophy and to fatty degeneration, and the muscles become inelastic. Young patients of this diathesis bear chloroform well, but it should be used less freely as age advances, unless hypertrophy of the heart and weakened blood-vessels are present. Strumous patients are defective in nutrition; the bones are frequently irregular; they have little or no adipose tissue, and are irritable, with weak muscles. A few drops of chloroform at infrequent intervals and during a pain will give these patients much comfort. Usually the fetus is small and the few drops necessary to relieve irritability will not increase the duration of labor. Dark, despondent women of the bilious diathesis are slender; their tissues are dry and inelastic; they are inclined to be whining, with little fortitude in pain. In these cases chloroform should be begun early in small, regular amounts, and the patient will soon become courageous and patient, and will eagerly follow instructions and assist the uterine contractions. These patients will insist that chloroform increases the strength of their pains, and the change in their demeanor would seem to corroborate their statements. The bilious frequently merges into the sanguine, and we have large, steady, persistent people with marked tendency during labor to rigid os and perineum. When the bilious merges into the nervous diathesis we find active women but great sufferers. Many of the chronic invalids are of this type. Both of these classes are benefited by the use of chloroform from the early stages of labor until the end; even, small, regular amounts, sufficient to relax spasmodic muscular action and relieve keen pain.

The bilious and lymphatic combination presents to us a helpless creature whose natural weakness is intensified by despondency. She has heard that chloroform makes her labor easy, and she insists upon having it early and in large quantities. The difficulty is readily overcome by liberal inhalation of alcohol. Chloroform should not be administered in normal labors with this type.

The sanguine diathesis is frequently blended with the nervous and bears chloroform well. When the strumous is blended with the nervous, chloroform can be used freely. When the strumous is merged into the sanguine, chloroform can be exhibited freely, but should be watched more closely than in the nervous diathesis, When valvular lesions of the heart are present, the increase in the volume of blood and the increased engorgement of the bowels that occur during the uterine contractions become a source of danger. Without chloroform the heart's action becomes labored and irregular, and the patient's distress is great, but immediately upon its exhibition the vasomotor dilation allows the patient to bleed into her venous system and the vigor of the uterine contractions is lessened. The excess of work thrown upon the heart is removed, and the relief to the patient is so evident that Bacon would as soon think of approaching one of these cases without aseptic precautions as without chloroform.

When disease of the blood vessels is present, chloroform should be administered to relieve straining and lessen the danger of rupture. Albuminuria is benefited even though eclampsia is not present, when the albumin is due to reflex irritation or increased arterial tension, and under certain conditions French and German investigators claim that the amount of albumin excreted is diminished and sometimes disappears. When eclampsia occurs before delivery, the convulsions are controlled, the exhaustion and the uterine spasms are checked, allowing normal contractions to occur.

In certain cases the pain is of such a character that labor is delayed, and chloroform at such times hastens delivery and prevents some dangers. In primiparæ, when pains are severe and the os dilates slowly, the patient becomes worried and weary, and nervous irritability and exhaustion follow. It sometimes happens that intense suffering inhibits proper contractions, and ineficient pains result. In abnormal presentations uterine contractions become pathologic in intensity, as seen frequently in hysterical women. During the second stage, particularly if it is long continued, the vulva becomes swollen and irritable, and if the pains are severe, the patient frequently can not be induced to strain. In all of these cases chloroform given to the obstetric degree takes the edge off from the pains and gives the patient courage; at the same time

the intervals between pains are lengthened and the patient obtains rest. Chloroform should be used to control tetanus of the uterus, spasms of the cervix, and to relax a rigid perineum if due to reflex irritation, but it should be borne in mind that a rigid perineum is frequently but an indication of weakened uterine action. In precipitate labor, if the rigid condition of any portion of the birth-canal makes tearing probable, chloroform should be administered in quantities to lessen uterine force as well as to relieve pain. Forceps are applied usually because of uterine inertia, and chloroform should be used to relieve sensibility and allay reflexes, but the tendency to flood should be borne in mind and its use discontinued before delivery. During version, anesthesia is required for all sensitive patients. Without it the uterine muscles become tense as the hand pushes in, and sometimes the contraction becomes continuous; besides, the pain is intense and struggling frequently interferes with the necessary manipulation. It should be discontinued as soon as turning is accomplished.

It should be omitted only when the abdominal and uterine muscles are insensitive and when the cervix is dilated and flabby or when contraindicated by disease. Chloroform is useful in all cases where it is necessary to pass the hand into the uterus to change presentations.

In foot and breech presentations it is useful in unrully patients, but in the main the benefit as an anesthetic is doubtful, for the co-operation of the patient and the uterine pains are necessary assistants.

The Disinfection of Rooms.

Drs. Novy and Waite in the Medical News conclude a paper upon this subject with these general directions:

1. All cracks or openings in the plaster or in the floor or about the door and windows should be caulked tight with cotton or with strips of cloth.

2. The linen, quilts, blankets, carpets, etc., should be stretched out on a line in order to expose as much surface to the disinfectant as possible. They should not be thrown into a heap. Books should be suspended by their covers so that the pages are all open and freely exposed.

3. The walls and floor of the room and the articles contained in it should be thoroughly sprayed with water. If masses of matter or sputum are dried down on the floor, they should be soaked with water and loosened. No vessel of water should, however, be allowed to remain in the room.

4. One hundred and fifty centimetres (five ounces) of the commercial forty per cent. solution of formalin for each 1000 cubic feet of space should be placed in the distilling apparatus and as rapidly as possible. The key-hole and spaces about the door should then be packed with cotton or cloth.

5. The room thus treated should remain closed at least ten hours. If there is much leakage of gas into the surrounding rooms, a second or third injection of formaldehyde at intervals of two or three hours should be made.

Liability of Physician for Negligence Of One Whom He Recommends.

Dr. A. N. Taylor, (New York Medical Journal): Having determined that the physician has under ordinary circumstances the right to leave his practice in the hands of a competent substitute, it becomes pertinent to consider what, if any, responsibility such physician bears for the acts of his substitute. Should the physician recommended be in a legal sense the agent of the physician recommending him—that is, if he is employed by him as an assistant—then the law applies the legal maxim *qui facit per alium facit per se*, and holds the recommending physician liable for all negligent or improper professional conduct of his agent. But if, on the other hand, the physician recommended is in independent practice, and is properly esteemed a man of ordinary professional ability and of proper discretion, the physician recommending him will not be held responsible for any error he may commit.

When a regular railroad physician, upon going away for a short time, gave instructions that if anything happened the railroad company should call upon a certain other doctor, and an accident did occur and the designated physician was called in and improperly treated the case, it was held that the regular physician was not liable for such improper treatment, there being no evidence to show that the physician recommended was in the employ of the defendent.*

In the case of Meyers vs. Holborn,† a physician promised to attend a patient during confinement. A short time before the event took place he left the city for a three days' vacation, but first visited the patient and made an examination of her condition, from which he concluded that his services would not be required for several days.

*Hitchcock vs. Burgett, 38 Mich., 501.

†Meyers vs. Holborn, 29 Vroom. 193, 33 Atl. Rep., 389.

During his absence, however, the child was born, and according to arrangements made by the defendant before leaving, the patient was attended by another physician, who severed the umbilical cord so near the child's body that it was impossible to tie it, in consequence of which the child died. An action was brought by the husband against the physician employed to attend the case for this negligence of his substitute, but the liability was denied by the court, which, speaking through Justice Gummere, said: "Dr. ——— (the physician recommended to attend the patient) and the defendant were each of them practicing physicians within the State, having no business connections with one another, except that Dr. ——— was attending the patients of the latter while he was temporarily absent. Even if it be admitted, therefore, that Dr. ——— was employed by the defendant to attend upon the wife of the plaintiff, that fact did not render the defendant liable for his neglect or want of skill in the performance of his service, for examination of authorities will show that a party employing a person who follows a distinct and independant occupation of his own is not responsible for the negligent or improper act of the other."

It will be observed from the foregoing opinion that in New Jersey the courts go so far as to hold that a physician can not be held for the negligence of another physician whom he employs to perform certain professional services, if such other physician has a distinct and independent practice. While there is no question about the correctness of the principle of law by which the court arrived at this conclusion, it is doubted whether the courts of other States will find the principle applicable to this particular condition; therefore, a physician can not be safely advised to employ another physician to attend to his practice, even though such other physician does enjoy an independent practice, if he desires to escape liability for the professional errors of such other physician,

A question which might de suggested by those preceding is one which arose in the case of Jones vs. Vroom.‡ In this case the defendant, a physician in general practice, who was attending the plaintiff for typhoid fever, was informed by her that she had a pain in one of her eyes and that the sight was beginning to leave it, and was asked to send her an oculist. The defendant laughed at her, and told her there was nothing the matter with the eye, but upon further request promised to send her an oculist. He did not comply with the request, however, and as an excuse for not doing so said he had forgotten the matter. Finally the nurse telegraphed for an oculist, who said, upon examining the eye, that he could do nothing for it, but that he might have done something if he had been sent for sooner. The plaintiff sued the defendant for not securing the oculist when requested, but the defendant's liability was denied. The court said: "The defendant was employed to treat her for fever, and his employment imposed no duty on him to provide her with a specialist for her eye." This case was tried simply upon the question indicated in this quotation; it therefore is possible that other questions might have been raised upon which a different decision could be reasonably expected. Any way, it is never safe for one to undertake to do a thing without fulfilling the agreement, whether there is a consideration or not, and a physician can not safely ignore complaints regarding conditions which by any probability relate to the condition for which he is treating the patient.

‡Jones vs. Vroom, 8 Colo App., 143.

The Effect of Cycling on Diabetes.

The influence of cycling on the heart and kidneys has received some attention of late years, but its effect on diseases involving the general metabolism of the body, such as diabetes, is unknown. The difficulty in estimating the therapeutical value of cycling consists in the fact that the amount of work done cannot be measured, and therefore we are unable to say in individual cases whether cycling would be advantageous or not. The "British Medical Journal" says that Albu in a recent paper reports on a mild case of diabetes in which he ordered cycling. The patient continued to employ this form of exercise whenever he felt inclined. There was no alteration in either the subjective or objective sysmptoms. The glycosuria remained the same, and also the body weight. A more difficult problem presented itself in the case of a man aged twenty, whose father had died of phthsis. His subjective symptoms were polyphagia and polydipsia. There was some wasting of fat, but the muscles were well developed. Carbohydrates were excluded from the diet for three days, and at the end of this time the urine contained 1.8 per cent. of sugar; the amount of urine excreted in twenty-four-hours was 87 grammes. The presence of diacetic acid was demonstrated by the ferric chloride test. The case was therefore one of the severer forms of diabetes. With careful feeding, the daily amount of sugar excreeted amounted to 4 to 7 per

cent. The diet consisted of 250 grammes of albumin and fat, and 150 grammes of carbohydrates. After two hours' cycling there was a reduction of 1 to 3 per cent. in the sugar excreted. When exercise was discontinued for a day the amount of sugar rose to its former proportion. After a purely meat diet exercise did not diminish the excretion of sugar.

After seven weeks' cycling the amount of sugar never exceeded 3 per cent. even when the exercise had been discontinued, and the carbohydrate food had been increased. The degree of tolerance for the absorption of carbohydrates was now tested, and on the third day after they had been excluded from the food, the urine contained 0.3 per cent. of sugar, the daily excretion of urine had been reduced, and there was no acetone or diacetic acid. Albu points out that so favorable a condition is rarely brought about even by the strictest dietetic measures. The patient continued to improve for the six mouths preceding the report, and on several occasions the glycosuria had completely disappeared. In the eighteenth century treatment by exercise was very generally adopted. At the beginning of the nineteenth contury it was almost given up, and the interest in the subject had to be revived by Trousseau and Bouchardat, though the work of Kulz, who pointed out the necessity of selecting fit cases for the exercise treatment, attracted some attention in Germany. Albu urges that when the diminution in the glycosuria is associated with disturbance in the albuminoid metabolism (a deficit in nitrogen, or the presence of diacetic acid), the amount of exercise must be very carefully regulated. Cases in which the muscles are ill-developed are unsuitable for the exercise treatment. The theoretical explanation of the treatment is far from satisfactory, as our knowledge of diseases affecting general metabolism is at present very imperfect. The muscular exercise is said to increase the combustion of glycogen, and thus diminish the quantity of sugar circulating in the blood.

The Antiseptic and Eliminative Treatment of Typhoid Fever.

Dr. T. V. Hubbard, of Atlanta, (Va. Med. Semi-Monthly) is a strong advocate of the Antiseptic and Eliminative treatment of typhoid.

He does not follow closely the method of Dr. Woodbridge, but gives the medicine in larger doses and at longer intervals.

Dr. Hubbard says, it is notably true that the most conspicuous and pronounced opponents of the antiseptic and eliminative treatment are, almost without exception, those men who have never systematically used it in even a limited number of cases, thus placing themselves in the absurd position of condemning this treatment without ever having given it a fair trial.

The only earthly tribunal whereby the efficacy of any therapeutic measure may be honestly and fairly adjudged is at the bar of mortuary statistics and upon this indubitable evidence, he is willing to stand or fall. The doctor believes some in baths, but not much.

Calomel, through its stimulating action upon the liver and kidney, is given the first place.

The treatment consists in the administration of calomel, ½ gr., guaiacol, 2 grs., podophylin, 1-20 gr., in capsule every two hours for 24 to 48 hours, depending on the condition of the bowels. After securing four or five movements for two successive days, ½ gr. menthol is substituted for the calomel and the capsules continued. Salts or Hunyadi water may be used if the bowels become inactive later on.

Two or more evacuations should be had every day.

The menthol, guaiacol and podophylin are continued throughout the disease.

Timidity or skepticism, on the part of the physician, in regard to the administration of calomel will too often result in failure. Under this treatment the author claims that the patient can digest and assimilate more food than is ordinarily given. Ninety-seven cases are reported with an average duration of 14⅔ days, and only one death.

The National Formulary.

Dr. M. D. Hoge, Jr., in the Va. Med. Semi-Monthly, gives some interesting information concerning the very useful little book called the *National Formulary*.

It contains in all 454 formulæ, which have been carefully selected and tested by a special committee from the American Pharmaceutical Association.

These formulæ represent very accurately the ingredients of patent and proprietary remedies that are more or less used by physicians as they are not only of benefit but are palatable and easy to take.

By using these formulæ, when indicated, it is possible to get the best results in the most pleasant way and the prescription has no trade name for the patient to learn and tell to his friends.

We have let the pharmaceutical ability of our home druggists run to seed by prescribing Tom, Dick and Harry's ready made prescriptions with directions attached.

The druggist to-day is little more than the "hander-out" of original packages, doing almost no compounding and dispensing, because the modern doctor is too lazy to write a prescription, or so rushed with surgery that he has no time to study the materia medica. If he must have some one else to do his thinking let him get the National Formulary and at least go through the form of writing a prescription.

Pelvic Tuberculosis.*

The principal avenues of entrance are along the loins from the intestinal tract. The morbid conditions resulting in adhesions of the portion of the intestine to the Fallopian tube and the subsequent ulceration or perforation of the united surfaces furnish, no doubt, one of the means by which the bacilli reach the adnexa. From the intestine to the mesentery, and from that point to the peritoneum and to the uterine appendages the bacilli may pass uninerruptedly. In many cases, if not in most, tuberculosis of the genital tract occurs in connection with the general dissemination of the disease in the other organs. This not infrequently takes place in childhood and before puberty. Tuberculous lesions of the adnexa originating through the blood supply, though occasionally observed, cannot be regarded as a common process. The three forms of the Fallopian tubes usually mentioned may very properly be reduced to two classes, the miliary and the fibroid varieties. Miliary pelvic tuberculosis may not pass beyond the first stage, or the disease may remain latent for varying indefinite periods. It is in such cases that a mere abdominal incision may be followed by apparent recovery, but it is not safe to regard the seeming recovery that follows celiotomy resorted to for tubercular peritonitis as being permanent in results. The chronic form of fibroid tuberculosis, in which the connective tissue is greatly increased, may become arrested in its course of recovery. The connective tissue in its embryonic development having, of course, its origin in the same fibrous layer tends generally to the production of conservative processes. The preternatural development of the fibrous tissue in the tube, ovary, or other pelvic structure exposes the mass to the danger of becoming, through its diminished vitality, the focus of malignant degeneration. Observation proves that the presence of bacilli in the testes of husbands of women who are found suffering from tuberculosis of the Fallopian tubes should not be regarded as being positive evidence that the disease has been the result of transmission of bacilli from the husband, nor such infection of the male genital organs may have first been imparted from the female,

*Abstract of a paper read at the Columbus meeting of the American Medical Association, by Dr. A. P. Clarke.

A New Pathogenic Microbe of Sewage.

Dr. Klein, in the British Medical Journal, describes this new pathogenic microbe as follows:

This microbe was isolated in pure culture from the purulent peritoneal and pleural exudations of a guinea-pig that died forty-eight hours after subcutaneous injection of a small amount of the deposit of fresh sewage; also from the subcutaneous abscess of this and the companion guinea-pig injected at the same time. The above purulent exudations, as also the pus of the abscess, were crowded with the microbe, either free in the fluid or enclosed in groups within the substance of the pus cells.

The microbe is a minute bacillus, the average length varying between 0.6m and 1.25m (few are longer), clindrical, and in chains; its thickness is about 0.4m. It is non-motile and stains slightly in Gram.

In gelatine plates kept at 20 degs. C. the traces of growth show themselves after forty-eight hours in the form of gray translucent round dots; these enlarge slowly, forming circular flat discs, slightly thicker in the centre than at the margin.

In gelatine streak the growth is gray, translucent; when growth is complete, say, after two to three weeks, it shows under a magnifying glass a thicker knobby centre and a thin translucent margin.

In gelatine stab the track of the needle becomes marked as a thin whitish line, which under a magnifying glass is seen composed of closely-placed minute droplets; on the surface of the stab a circumscribed flat gray expansion is just noticeable with the unaided eye. The gelatine is not liquefied after weeks and months. On the agar surface the colonies are translucent gray, viscid discs; in agar streak translucent gray, viscid bands; in agar stab (37 C.) the growth is like that in gelatine stab, except that at the surface of the stab there is a circular, distinct, plate-like expansion of the growth.

In alkaline beef broth kept at 37 degs. C. the growth is rapid; the browth is slightly turbid already after twenty-four hours, but after several days the broth clears and shows numerous fine granules along the sides and a powdery precipitate at the bottom of the tube. The broth, even after growth is completed, has a distinctly alkaline reaction; no idol is produced. The microbe grows

well in litmus milk and in milk without altering either the litmus or the fluid condition, reaction, and aspect of the milk.

In shake culture in ordinary gelatine or in grape sugar gelatine it produces no gas; it grows very feebly in the depth of the gelatine. On potato no growth is visible or demonstrable by microscopic specimens. The microbe does not grow on acid media and in fluid media distinctly produces alkali. Neither the pus of the abscess nor the purulent exudations, nor any of the cultures, have any smell.

The microbe, when injected in minute doses, is pathogenic. Small doses—even a portion of one colony—cause disease in the guinea-pig. When injected subcutaneously into the groin, in the majority of intances, only a local abscess is the result; this commences as a small tumor a day or two after the injection; this enlarges and soon becomes changed in the course of two or three days into an abscess, from the size of a bean to that of a hazel-nut, filled with creamy thick pus. Under the microscope the fluid contains an abundance of the bacilli as single individuals, or more frequently as dumb-bells; some few are cylindrical and some in chains. Many of the pus cells contain the bacilli, occasionally their protoplasm being packed with the bacilli. Some pus cells are greatly swollen by the number of bacilli, and eventually disintegrate, so that the groups and clumps of the bacilli become free. In a large minority of instances, however, the result of subcutaneous injection is, besides the local abscess, general disease, ending fatally in three or four days.

When the result of inoculation is a local abscess only, no bacilli can be found in the blood, but when it is a general purulent inflammation of the serous membranes, the blood of the heart and of the viscera, spleen particularly, contains an abundance of the microbe.

Injection of minute doses into the peritoneal cavity of guinea-pigs leads to fatal results within twenty to twenty-four hours. On post-mortem examination purulent peritonitis, with pyogenic membranes on the liver, spleen, diaphragm and kidney, and inflammation of the small intestine, occasionally pleural and pericardial exudation, also present.

In the mouse subcutaneous injection of the culture in small doses causes general septicemic infection, the blood of the heart and of the viscera teeming with the microbe, the viscera of the abdomen and thorax being greatly congested.

In the rabbit no pathogenic effect is produced.

From these observations, both as to cultural characters and as to the result of animal experiments, it is clear that the microbe is distinct from Passet's bacillus pyogenes fetidus, as also from Bolton's bacillus pyogenes soli. Culturally it resembles, to a certain extent, the bacillus suisepticus of Loffler and Schultz, but the action of this latter on rodents is altogether of a different nature from that described above of our microbe. On account of its derivation from sewage and its conspicuous pyogenic action, Klein proposes for it the name "bacillus pyogenes cloacinus."

Hysteria in Children.

Dr. E. E. Mayer read a paper with this title at the recent meeting of the American Medical Association. He said: Hysteria is not so uncommon as formerly thought; the Children's Crusades, the dancing manias of the middle ages, and the story of the Pied Piper of Hamlin, show that it has always existed. Anglo-Saxons are not so free from it as has been supposed, and their comparative freedom from it is due to our better methods of training than to any special absence of heredity. The disease is psychical, but is modified by the physical conditions. One authority has said that he has never seen hysteria without chlorosis. This psychic element is more important. Imitation of neurotic conditions in parents is of etiologic import. The diagnosis of hysteria in children is not easy. The ordinary stigmata of the disease, the anesthetic patches of skin and of fauces, the concentric narrowing of visual fields, are not usually present. The affection often runs a non-symptomatic course. The variability of symptoms, however, and the suggestibility of the patients makes the diagnosis comparatively easy after study of the case. In the so-called hysterical palsies the gait is jerky, not hesitating; it is not weakness but over-action of muscle that is noted on movement. Patrick has shown that the limits of the anesthetic and hyperesthetic varies almost from minute to minute. The treatment of hysteria in children is moral. Underlying physical conditions must be treated in the usual way, but parents must be impressed with a proper sense of responsibility and made to train their children so that their emotional side does not run away with them, but no corporal punishment must be employed. The prognosis is better than in hysteria in older people, but great firmness is necessary in not yielding to the child in the slightest degree. For this reason the specialist often succeeds where the family physician fails.

Traumatic Shock.

Senn, in St. Louis Courier of Medicine, goes deeply into the history, etiology, symptoms, diagnosis, prognosis, pathology and treatment of traumatic shock.

The term shock originated in England and very little has been added to our knowledge of it since the writings of Jordan, Pirogoff and Groeningen; experimental work must furnish information regarding its essential nature.

The definitions of shock vary with the writer making confusion which is further added to by the discussion on delayed or protracted, and local shock. Shock, according to Dr. Senn, is the complexus of symptoms resulting from the immediate effect of the injury—may be permanent or temporary paralysis of reflex origin, in the absence of hemorrhage. Toxic or mechanical agents circulating in the blood, can not be considered. Individual susceptibility plays an important part, the lower the scale of development of the nervous system the greater the resistance to injury. The condition of the nervous system in fact may be a predisposing cause of shock.

Sedentary occupation, debilitating diseases, mental worries and anxiety operate in the same manner. Civilization increases the susceptibility. Experiments with frogs by tapping over the stomach tend to prove that there is accumulation of blood in the large internal organs during shock. Thermal, chemical and toxic agents may produce shock. Mechanical irritation of the peritoneum and intestines, loss of heat during operations, handling the stomach, etc., will cause shock, the splanchnic nerve apparently being the centre. Grave injuries as in railway accident, concussion of the thorax, testicles, fractures, etc., may also cause severe shock.

In gunshot injuries the larger the shot the greater the shock.

The symptoms are: pallor, dilated nostrils, skin of forehead drawn in folds, cold surface, clammy perspiration, general sensibility greatly diminished, slow pulse, feeble, husky voice, chilliness, faintness, prickling and numbness, nausea, vomiting and singultus, surface temperature subnormal.

Some writers describe a form of shock characterized by excitement; such varieties perhaps never occur as primary complication.

Shock may be confounded with syncope, cerebral concussion, and hemorrhage.

Low temperature, below 96.8 deg. F., and loss of power to swallow, indicate termination by death.

Post mortem findings negative. Some indications of intense vascular disturbance.

In regard to treatment, the opinion concerning operations during shock is that they should not be done, unless it be a limb loosely attached or the ligating of large blood vessels. Whiskey, strychnine, recumbent position, external application of heat, nitrite of amyl, alcohol, coffee, tea. In using heat look out for burns. Rectal enemas of hot salt solution, electrical stimulation of the phrenic, artificial respiration, inhalation of oxygen recommended.

Calibar bean is a stimulant of the splanchnic nerves must be tried further before it can be recommended.

Dr. Senn says that opium is contraindicated in uncomplicated shock.

The Recrudescense of Syphilis Due to Influenza.

Dr. J. W. Haward (N. Y. Medical Journal, Aug. 5, '99) thinks influenza is comparable to malarial fever in its power to bring out some of the later manifestations of syphilis and to make manifest any latent syphilitic taint. He mentions the case of a woman, forty-two years old, who had been infected by her husband eighteen years before. She was intelligent and aware of the nature of the disease, and gave a very clear history of her symptoms. She had had a chancre on the vulva, followed by well-marked secondary symptoms which had lasted for a year and a half. For the following year she had remained free from symptoms, having been continually under treatment, but during the succeeding year she had again suffered from ulceration of the throat and skin, for which she had been treated. Then, so far as she could remember, she had remained well until the time of a recent attack of influenza, but in that attack rupial bullæ appeared over the body and developed into numerous and extensive ulcers. At the same time her hair fell out so that she became almost bald, and from an anæmic pallor her complexion became of a dull bistre tint. Then ulceration of the soft palate occurred, leading to an extensive perforation, A large periosteal node formed over the back of the radius, and subsequently she had ulcers between the toes.

The recurrence in this case, says Haward, was of unusual severity, but he adds that in other cases which he has observed there has seemed to be a special tendency to ulceration. This tendency and the proneness to breaking down and necrosis of inflammary products, he remarks, are indications of lowered vitality, and they should be borne in mind as guides in the treat-

ment. In such cases, he thinks, the calomel vapor bath will be found very efficacious. The recent occurrence of influenza he considers to be no bar to the administration of mercury, and in the cases he has observed he has found mercurial treatment to be always of the greatest benefit. He is convinced that, however remote the original syphilitic affection may have been, in nearly every case of syphilis in which fresh symptoms are evoked, benefit will result from the administration of mercury, and he thinks he has witnessed good results from the simultaneous employment of a fresh decoction of sarsaparilla.

Appendicular Inflammation as a Cause of Inflammatory Disease of the Right Ovary and Tube.

Dr. A. J. Ochsner (Journal of the American Medical Association, July 22): "Judging from this year's experience, as well as from my very much larger former observations, I am certain that the matter of secondary infection, especially of the right ovary and tube, has been very much underestimated. The following conclusions seem to be borne out by this experience: 1. Appendicitis frequently causes inflammatory diseases of the right ovary and tube, and occasionally the left side is also involved. 2. This condition is especially likely to give rise to chronic invalidism, because of the periodic exacerbation resulting from the congestion due to menstruation. 3. In operating for the relief of pyosalpinx, the condition of the appendix should always be determined. 4. In operating for chronic or recurrent appendicitis in patients suffering also from dysmenorrhœa, the right ovary and tube should be examined. 5. If the pain is limited to the right side in severe dysmenorrhœa, the appendix is frequently primarily involved. 6. In catarrhal appendicitis in which there is a fæcal concretion in the appendix, or in appendicitis obliterans, the pain is frequently most severe during menstruation. 7. In patients who have recovered from gangrenous appendicitis there is frequently no further disturbance from the condition of the appendix, except the digestive disturbance due to adhesions, while the secondary disturbance in the ovary and Fallopian tube may continue to be very great. 8. In young girls suffering from dysmenorrhœa the history should be followed very carefully, in order to determine the presence of a previous attack of appendicitis. 9. The fact that many of these cases are mistaken for salpingitis accounts for the theory that appendicitis is more common in men than in women."

The Bacillus in Diphtheria.

Grigorieff (British Medical Journal) gives the following as the results of his investigations with regard to the persistence of diphtheria bacillus in the mucous membranes of patients convalescent from diphtheria. In four-fifths of the whole number (36 out of 46) the bacilli disappeared very quickly, namely, not later than a week after the disappearance of the membrane. In a tenth (5 out of 46) the bacilli disappeared during the second week. In a tenth of the whole number (5 in 46) the bacilli were found up to the end of the third week. Bacteriological examination of the nasal cavities showed that the bacilli disappeared about the same time, or nearly so, as in the throat. An exception to this rule was when the nose was more severely attacked, not always with the formation of membrane. The author's conclusion is that the bacilli disappear or lose their virulence very early—as a rule during the first two weeks. It must, however, be borne in mind that in some patients the bacilli remain much longer than the period mentioned, and the continued virulence of these has been demonstrated on animals. The author concludes that the time of isolation must not be regarded as a fixed period, but must depend entirely on repeated bacteriological examinations of the nose and throat. These are of the highest importance in children going to school or otherwise mixing with other children. In hospitals convalescents should as much as possible, be kept apart from those patients who are in the acute stage of the disease, In addition to serum-therapy it is of the utmost importance to irrigate the throat, mouth and nose until the patient can be pronounced cured.

Surgical Treatment of Exophthalmic Goitre.

Doyen says, according to The Hospital, that there are but two operations that may be done—both of which have the same end in view—thyroidectomy, and section of the cervical sympathetic. There is no great difference in the dangers of the two operations. The champions of the latter operation say that the tachycardia diminishes and disappears, and that the goitre and exophthalmus do so too, although more slowly than the tachycardia. Doyen, on the contrary, maintains that thyroidectomy produces radical results, not merely ameliorations; it suppresses, for instance, the tachycardia in from eight to ten days. In support of these arguments he cites two cases, one operated on eight and the other four years ago, both of whom are now perfectly

well. Booth records the cases of eight patients suffering with exophthalmic goitre who were treated by excision of one lobe. Five were cured, one died. One had been improved, and in the last no improvement had taken place in six months. The order of improvement was the following: First the goitre diminishes, next the nervous symptoms disappear, then the pulse rate and vasomotor phenomena improve, and the exophthalmus last of all. These results agree generally with those which have been reported; in about 80 per cent. a cure or improvement takes place. Fatal results occasionally occur; 13 are known to have occurred from 1890 to 1898, i. e., in about seven per cent. of cases. The death takes place suddenly, either at the time of operation or soon afterwards, and the rapid onset of symptoms is as yet unexplained. Stokes also records a successful case of partial excision of the thyroid for exophthalmic goitre.

The Differential Diagnosis of Hysteria and Neurasthenia.

To the average physician, a differential diagnosis of hysteria and neurasthenia, is not very important seemingly, as he is accustomed to treating both alike, but Dr. Ludwig Bremer, in the St. Louis Courier of Medicine, says that as the treatment of the two conditions are essentially different the diagnosis is important. He suggests the following points of differentiation, at the same time admitting that there is such a thing as hystero-neurasthenia.

The cardinal symptoms of neurasthenia are these: Headache or pressure about the head (leaden casket or band), vertigo, nervous dyspepsia, vascular disturbances, hot waves, excessive exhaustibility, sleeplessness, morbid fears, vague and hazy in character. In hysteria we have the vivacity and buoyancy sharply contrasting with the severity of the symptoms, the pain is simply awful in hysteria, in neurasthenia it is of a milder type. Cutaneous anesthesia almost pathognomonic of hysteria.

Certain forms of paralysis, (monoplegias, transient or lasting with no organic lesion), are always hysterical.

Neurasthenics are not so anxious for mutilating operations as is certain forms of hysteria.

Neurasthenics, as a rule, only want minor operations, as swabbing or curetting the womb, cutting and dilating the spincters, etc., while the hysterical patient will clamor oftentimes for the removal of uterus, ovary, etc. Pseudo-tabes is not apt to be met with in neurasthenia, frequent in hysteria. Perverted sensations such as, girdle feeling, the globus and clavus, feeling of strangulation, are all peculiar to hysteria and foreign to neurasthenia. The "dying" heart of the neurasthenic is weak and feeble, while in an attack of hysteria it is normal. Pseudo-Cheyne-Stokes breathing occur in hysteria, never in neurasthenia. Two symptoms always present in hysteria. A mild degree of aphasia, a tendency of the muscles of the neck to pull the head backward, oxaluria and phosphaturia point to neurasthenia.

Hysteria is always hereditary, neurasthenia is often acquired.

Hysteria differs among different nations, neurasthenia has an universal type.

Patriotism and Lockjaw.

The fact that within three weeks from the Fourth of July over half a hundred boys in New York city and vicinity have died from lockjaw superinduced by wounds from toy pistols, toy cannons and other Fourth of July explosives—evidencing thus a veritable epidemic of tetanus—raises afresh in many minds the following questions, viz: (Gaillard's Medical Journal)

1. Why will our city aldermen allow the sale, especially to minors, of such confessedly dangerous affairs as pistols and toy cannons?

2. Why do the police permit the promiscuous discharge of fire-arms, fire-crackers, torpedoes, etc., on the streets of a great city three and four days, and even a week, before the Fourth of July, as was the case in numberless uptown New York streets this year?

3. Why do parents of even average intelligence permit their children to play with these deadly and nerve-destroying fire-arms?

Such questions are by no means new. They are propounded quite seriously every year just after the great celebration is over, and while the hearses are carrying the dead to cemeteries, and the physicians and nurses in hospitals are busy trying to patch up the living remnants of a disfigured humanity. Almost every year when the havoc to human life and the destruction to property by fire are seriously considered, some of our law-makers pass resolutions that the promiscuous sale of dangerous explosives must be stopped, etc. Then when the next annual festival of fire-works and death comes around, it is just as easy for the conscienceless vendors of the death-dealing toys to get their licenses and stock up with the horrible things as it was the year before. No restriction on buying; none on selling; none on permitting irrational youngsters to add to the other and inevitable noises of the streets the shocking,

soul-harrowing detonation of torpedo, pistol and cannon.

Is the average parent indifferent as to whether his or her child shall join the long procession of those that are maimed for life or put under the daisies in the very spring of life? To many sober, thoughtful people who deplore this noisy and most irrational form of manifesting patriotic sentiment "the day we celebrate" is fast becoming the day we *execrate*, and in such minds the question arises, would it not be better to celebrate our Nation's birthday as we elect our President,*once in four years only?* Either that, or pass restrictive and prohibitive laws that will be *enforced*. Make it a *jailable offense* for any storekeeper to sell fire-works of any kind until the day before the Fourth, and require the police to take to the station-house any boy discharging fireworks on any day but the Fourth, or carrying *toy pistols* at *any time*. Then we shall have fewer cases of tetanus to deal with as the aftermath of "the Glorious Fourth."

The Early Diagnosis of Locomotor Ataxia.

Dr. William B. Pritchard discusses the Importance of Early Diagnosis in Locomotor Ataxia as affected by the newer pathology in a well prepared paper read before the West End Medical Society of New York, and reported in the New York Medical Journal.

Dr. Pritchard states at the outset that this is one of the most frequently observed of the organic affections of the nervous system, about ten per cent. of his cases for the past year being tabetics.

The preataxic stage of the disease is characterized by exceeding varied symptoms being almost protean. Therefore this early diagnosis depends upon the oculist, the dermatologist, the genito-urinary expert, the orthopædist, or the surgeon, though, perhaps, most of all upon the general practioner.

The clinical picture of the established disease is a familar one since the time of Duchenne in 1857.

The discovery by Waldeyer, through Golgi's stain, of the neurone as the nervous unit, has completely upset the established pathology of this disease.

The theory of the neurone applies to both motor and sensory units. This sensory unit with which tabetic symptoms are associated, has a flask-shaped body, its axone divided into two branches, one peripheral, the other central.

The newer pathology, as expressed by Marie, is that "the changes found in the tabetic spinal cord are not the result of a primary systemic myelopathy; they are the expression of a progressive degeneration of the posterior root fibres. The medullary changes in tabes occur in segments, while each diseased posterior root furnishes a new contingent of degenerated fibres to the spinal cord."

The author's points in the diagnosis are broadly, age, sex, occupation, syphilis, periodical vesperian headaches, insomnia in the fore part of the night, unusual and excessive fatigue, with special reference to the nervous system, disturbances of common sensibility, tactile, pain and muscular sense, strabismus, ptosis with diplopia occurring suddenly in a male adult without pain, myosis occasionally pupillary inequality, reflex iridoplegia or Argyll Robertson pupil, anesthesia of the palpebral conjunctiva, optic atrophy.

As to the genito-urinary organs, Dr. Pritchard mentions defective erections, diminished sexual desire, analgesia of the testicle and scrotum, slight incontinence, obstinate constipation if associated.

The reflexes, abolition of knee jerk and ankle reflex, the abdominal and epigastric reflex may also be affected.

Trophic symptoms may be perforating ulcers, falling out of hair, onychia, herpes, bullæ, lipomatar, sudden painless swelling of the knees and elbows with tendency to spontaneous fracture of the bows.

As early crises, gastralgia or enteralgia, excessive vomiting, dysuria, vesical tenesmus, etc., may occur.

Infective Otitis.

F. M. Wilson, (Yale Medical Journal, May, 1899).

In the majority of cases bacterial invasion travels up the Eustachian tube. Influenza probably furnishes more cases than any other disease. Exanthemata of childhood are a potent factor in giving rise to this infection. The nasal douche is accountable for a certain proportion of attacks.

The nose and naso-pharynx are never sterile, and among the more frequent inhabitants of these regions are mentioned the staphylococcus pyogenes (albus and aureus), the streptococcus pyogenes, the pneumococcus and the tubercle bacillus.

Indiscreet use of the Politzer bag, or forcible blowing of the nose, occasionally causes an inflammation of the middle ear.

Attention is called to the importance of a now well-organized fact that three-quarters of all ear diseases come from the nose or throat.

Early paracentesis is recommended, as it

unloads the overfull blood vessels, relieves the pain and offers a ready exit for the serum, which usually precedes pus. The danger of starting an infective process from the external auditory canal must be considered, and this abortive measure should be carried out under strict antiseptic precautions.

Heat exercises an adverse influence on bacterial growth. Traumatism should be avoided in applying moist heat. Powders are used only at the end of the treatment, as they are apt at times to cake and thus prevent drainage.

Extension of the suppurative process may be in a number of directions, and prompt surgical methods should be adopted.

Sinus thrombosis is now treated on sound surgical principles, and foci of suppuration must be sought for and drained.

The American Electro-Therapeutic Association.

With the near approach of the annual meeting of the American Electro-Therapeutic Association, to be held on September 19, 20 and 21, in the city of Washington, under the presidency of Dr. F. B. Bishop, the Local Committee of Arrangements is redoubling its efforts to make it a success. Many electrical manufacturers will be represented in the Exhibit Hall, and information will be freely given. Papers have thus far been promised from Drs. R. G. Nunn, A. D. Rockwell, Margaret A. Cleaves, F. J. Leviseur, Walter White, Robert Reyburn, G. A. Corson, C. O. Files, J. H. Kellogg, John A. Licthy, W. W. Scheppegrell, L. Howe, E. Wende, F. B. Bishop, Robert Newman, W. J. Herdman, G. B. Massey, aud Profs. Bergonie, of Bordeaux, Apostoli and Dolbear, of Paris.

With snch authors a successful meeting must result.

The Evolution of Specialism.

Ruth Webster Lathrop, (Baltimore American Academy of Medicine.)

"We are living in great times. Forces that have been silently at work for centuries are just finding their expression. * * * The pattern of the world has been turned inside out. The old world, like an ancient house, was built toward the inside and its colonnaded court; the new is built toward the outside, with windows and veranda. * * * * Only in understanding of the past can we interpret and use the present." Dr. Benjamin Ide Wheeler thus wisely speaks in a recent address entitled "The Old World in the New."

Your attention is invited to the consideration of a force which has been working for centuries and to its expression, for this is the force which represents a series of factors in the production of medical specialism and some of its expressions—its reactions—may be said to constitute the various specialties of medicine.

Von Baer's Law, "The more special forms of structure arise out of the more general and that by a gradual change."—which refers to the successive changes of form in the animal kingdom, and applies as well to the successive changes of function—may, by modification, apply to the progressive manifestations from the simplest idea of "medicine" to the modern concept of its multiple specialties. It is interesting to note the apparently divine origin of medical science in diverse fields—essentially two—the Oriental and the Occidental. The differentiation of medicine and religion occurs early, but throughout the individual history of each, superstition and education may be recognized, although in varying proportion, as common factors. Only when the educational element predominates and superstition is miminized does medicine reach its broadest possibilities.

Oriental development, compared with Occidental, is slow, centripetal, toward the inner court, bounded; there is no time in the Orient. Occidental development is rapid, centrifugal, toward the windows and veranda, unbounded; and "time is money." The 19th century accentuates this statement. "The trend of the century is to increase knowledge" and this may mean the knowledge of the organism as well as of the environment. The more complex the environment, the more complex the organism, the more complex the reactions. Since the civilization of the day depends upon these complexities the field where specialism is most rapidly advancing is that of neurology, including the attempt to educate the feeble-minded, the epileptic, the criminal and insane as well as the medical and surgical treatment of the brain.

Education is the basis of the differentiation of medicine and religion; education is the basis of the differentiation of medicine and surgery; education is the basis of the differentiation of the specialties of medicine; education is the basis of the differentiation of the specialties of surgery; therefore the progress of specialism is always proportionate to general educational advance.

Without trespassing on the topic of another I may suggest some of the dangers of specialism. Quackism:—an insufficiently

educated, so-called specialist, differs little from a quack. The fee:—the evolution of the fee is often out of proportion to collateral fiscal conditions. Inhumanity:—the enthusiastic specialist often loses sight of the human side—it would be well for such to consider the aphorism of Hippocrates, "Where love for art is, there is also love for humanity."

Since education is the chief factor in the evolution of specialism the future of specialism will continue its alliance with general educational advance, for this is the exponent of all progress.

Therefore, in conclusion I ask: Should the more complete evolution of specialism depend upon increased special study preliminary to medical study, or, should increased education be along the line of the specialty only, or, should an increase in both general and medical education, before specialising, produce the relative ultimatum?

The Prevention of Deformity.

Dr. W. R. Townsend read a paper entitled "Prevention of Deformity after Excision of the Knee in Children," at the last meeting of the New York Academy of Medicine.

He reported the histories of eight cases seen within the last two years at the Hospital for the Relief of the Ruptured and Crippled, in which excision had been performed in early life in other hospitals. All of these cases presented some shortening, the greatest amount being nine and one-half inches, the least one-half inch. They all presented flexion deformity the greatest was held at right angle, the least deformity was 25 degrees, the average being nearly 50 degrees. Two showed bow-leg deformity and one knock-knee. Two had motion and six were firm. He quoted the views of several orthopædic text-books and the "Treatise of Surgery by American Authors" to show that the operation was indicated only in exceptional cases. The shortening was greatest when both epiphyses of femur and tibia were removed, and in early childhood, with extensive diseases present it was difficult to remove all diseased tissue without invading the cartilage between the epiphysis and the shaft of the bone. He showed the necessity of long-continued after-treatment, either by plaster of Paris or some form of brace if deformity was to be prevented, for many cases of apparent bony union began to present deformity months after the operation, and in some it rapidly decreased. The different methods of correcting the deformities were referred to, and forcible correction, under an anæsthetic, was advised only in those cases where, by very slight pressure, the flexion deformity could be overcome. In several cases of osteotomy or another excision was advised. Braces and operative procedures were advocated for the bow-leg and knock-knee deformities.

The Busy Doctor.

Dr. Culbertson (Lancet-Clinic): Occasionally a letter is received in which the writer gravely says he is taking so many journals he cannot read the half of them, etc., the polite phrases being framed as an excuse for discontinuing his subscription, which is all right and in perfect accord with the privilege of every man who knows and attends to his own business, with which there is no occasion whatever for argument. It serves, however, as an introduction to the claim made that he has not time to read half the journals he is taking.

The time was, and is not so far back, when the ordinary general practitioner of medicine thought he was doing entire justice to himself, his profession and his clients if he took a single medical journal. Conditions and times have greatly changed within the last twenty years. A medical education costs more than twice as much time and money as it did then, and the literature of medicine has quadrupled within that period. Friction and competition have increased in a similar ratio, so that the men who are ambitious to be at the front find themselves obliged to purchase new and improved instruments of precision, new books, and to take more than one or two medical journals. The man who has little business is always the one most crowded for time, and the little business he has is his boss.

The men who do the most work and accomplish great results always have time at their command, and always boss their business. They are rarely crowded, and seldom in a hurry. Visitors are received made to feel a welcome that is not an intrusion, that time is easy, no fret or fidget; work is either going on or there is a timely rest. Such men take and read from ten to twenty or more journals. They don't pretend to read every article, but they carefully read those in which they are interested, and scan more or less closely the advertising pages. In the latter many useful hints are found; here they find reference to the tools of latest pattern and design, hence do not pretend to pass them by.

The known men in the professson are the very ones who can be most easily and successfully approached for any given purpose,

whether it be to write an article or deliver a lecture, go on a journey or engage in a new enterprise. Their engagements are rarely pressing, and are always so dovetailed in time as to leave ample margins, and at the same time always fit in the right places.

The man who hasn't time to read half of the two journals he is taking is either fussing about a call he has to make or fretting because another doctor was called where he expected to officiate as chief factotum. In either instance his hours are so jaggered that he has little or no time to read, and that which he does read is not remembered.

Two things are never realized by the man who hasn't time: one is that there are even and exactly sixty minutes in every hour, and the other is like it, in which he fails to understand in its true bearings that there are neither more nor less than one hundred cents in every dollar.

The busiest men in the medical profession always attend the national, state and local medical societies. They are the ones who read papers, take part in the discussions and then attend all the social functions. Not once are they disconcerted by pressing business engagements, a reason for which is found in the fact that just at that time affairs are so arranged that a pressure does not come.

The men who can't get off to attend such meetings are worried and perplexed for fear some rival will profit by their absence, instead of swapping time and business with such rivals, through which both would prosper and be better thought of. The world is wide, and there are other pebbles on the beach.

Major Ross on Malaria and Mosquitoes.

Major Ross, (Lancet, May, 27, 1899) says that the malaria is not so dramatic a disease as cholera; it does not kill so quickly, but it kills far more people. In India it kills about 5,000,000 people a year. It is also a politically important disease, because it checks the progress of civilization in districts the richest in the world, killing more of the army than are killed by the enemy. Malaria has been found to be due to a parasite in the blood. Of this he is absolutely certain, having studied the subject for ten years in the tropics. The lecturer explained how a parasite gradually develops, destroying a corpuscle of the blood and leaving it a mere shell; when fully developed it scatters, and attacking other corpuscles, destroys and poisons them likewise. Even if not so numerous as to cause fever, they cause an indifferent condition of health. The treatment is quinine, but this does not help them very much. What they require to know is how malarial fever is produced. To do so they must find the parasite in external nature, and the problem has been solved by Dr. Patrick Manson. Besides these forms of malarial parasites which have been described, other forms are found. Describing how in watching a drop of blood drawn from a malarial patient there was seen in eleven minutes the remarkable effects of snake-like forms wriggling away and disappearing, Dr. Manson came to the conclusion that the life history of the malarial parasite when it leaves the human being is carried on in the mosquito, and therefore that malarial fever is propagated by the mosquito. The doctor described how in the tropics he followed out Dr. Manson's theory beyond the point where he left it. The mosquito, which is not an ephemeral insect, but one which would live for months under favorable conditions, he found to be furnished in certain species with an internal process which develops the parasite and its poison, and lodges it in a poison gland opening into the creature's proboscis. The mosquito, in puncturing the skin, is thus the means of inoculating a human being with the malarial poison. It is hoped that this species of malarial mosquito might be exterminated in certain districts, and this, he mentioned, would be the subject of a future lecture.

Colored Children; A Physico-Physical Study.

A. Macdonald (Journal American Medical Association) reaches the following conclusions in his study of this subject: Bright-colored boys excel dull-colored boys in height, but the latter excel in sitting height; among colored boys and girls, the per cent. of long heads is greater after puberty than before; this is true also of white boys but not of white girls; there is a sudden increase and high percentage of brightness in colored girls at the age of eight; at this age colored boys also show an increase of brightness but less marked, the boys at this age too have a much higher percentage in average ability in most all branches of study; colored children generally increase in brightness as age increases, whereas the reverse is true of white children; colored children are much more sensitive to heat than white children, their power of discrimination being better, not that they suffer more; white, children, relatively to their height, are longer boned than colored children.

Operative Treatment of Exophthalmic Goiter.

Schwartz (British Medical Journal) reports two cases of exophthalmic goitre treated by bilateral resection of the sympathetic nerve in the neck. In one patient, a woman aged twenty-three, the lower part of the superior ganglion on the right side, together with about two inches of the nerve trunk, was excised. This operation was at once repeated on the right side. In the second case the patient, a woman aged thirty-one, had suffered severely from attacks of angina pectoris. In this case, as there was considerable difficulty in exposing the sympethetic nerve on the right side, and the patient was very weak, it was thought well to defer the operation on the left side for a month. In both cases the operation, it is stated, gave much relief, and was followed at first by less marked prominence of the eyeballs and by reduced pulse frequency, and subsequently by a gradual amelioration of the general symptoms. The second patient was decidedly more benefited by the operation, as the distressing attacks of angina suddenly ceased after the sympathetic had been resected on both sides.

The Urine in Disease.

Dr. Formad (Tri-State Medical Journal) concludes an interesting article as follows:

1. Sediment in the urine has no significance unless deposited within twenty-four hours.

2. Albumin in the urine does not indicate kidney disease unless accompanied by tube-casts. The most fatal form of Bright's disease—contracted kidney—has little or no albumin.

3. Every white crystal in urine, regardless of shape, is a phosphate, except the oxalate-of-lime crystal, which has its own peculiar form; urine, alkaline.

4. Every yellow crystal is uric acid if the urine is acid, or a urate if the urine is alkaline.

5. Mucous casts, pus, and epithelium signify disease of the bladder (cystitis) or other parts of the urinary tract, as determined by variety of epithelium.

6. The urine from females can often be differentiated from the urine of males by finding in it the tessellated epithelium of the vagina.

7. Hyaline casts (narrow) blood, and epithelial casts signify acute catarrhal nephritis. There is much albumin in this condition.

8. Broad hyaline casts and epithelial dark green granules and oil casts signify chronic catarrhal nephritis. At first, much albumin; later, less.

9. Hyaline and pale granular casts, and little or no albumin signify interstitial nephritis.

10. Broad casts are worse than narrow casts, for the former signify a chronic disease.

11. The urine should be fresh for microscopical examination, as the micrococci will change hyaline casts into granular casts, or devour them entirely in a short time.

12. Uric acid may, in Trommer's test for sugar, form a peroxide of copper, this often misleading the examiner into the belief that he has discovered sugar. Thus when urine shows only sugar, other methods of examination must be used—preferably the lead test.

13. The microscope gives us better ideas of the exact condition of affairs in examination of urine than the various chemical tests.

Alcoholic Multiple Neuritis.

Larkin and Jelliffe make an important contribution to our knowledge of this condition in a paper recently contributed to the Medical Record.

They report a case that was carefully examined and watched for two weeks, when an autopsy was held, especially looking for changes in the nervous system. The case was simple and uncomplicated, and the pathological picture showed the effects of sudden acute alcoholic poisoning. All other factors in the case could be excluded. She was admitted suffering from paralysis of, with excruciating pains in, both arms and legs, slight catarrhal jaundice and gastric disturbance. She had always been a moderate drinker, one year ago, having family trouble and bereavement, she began a series of periodical debauches, lasting for weeks at the time, taking no food at all during these sprees.

The autopsy was held three hours after death. Some hypostatic congestion and œdema of the lung, slight hypertrophy of left ventricle, liver in a condition of beginning mild cirrhosis.

Marked ganglionic degeneration from the upper cervical cord to the conus, in both horns. Nearly every described grade of chromatolysis was observed, but central chromatolysis so characteristic of axonal degeneration was most prominent.

The cell involvement was much greater on the left side.

Marked degeneration of the entire column of Clarke.

Portions of the brain examined; degenerative changes in the anterior central con-

volution and irregularly scattered throughout other parts of the brain.

The authors conclude that "in fatal alcoholic multiple neuritis grave variations from the normal structure of the ganglion cells of the anterior and posterior horns, the columns of Clarke, the nucleus of Stilling, and the nuclei of the medulla, are always to be found when studied by appropriate methods.

The Induction of Premature Labor.

The falsity of the idea some people have about the ease with which labor may be induced is shown by Dr. Henry C. Coe in the Medical Record for July 8th.

Experience has shown that the uterus is very tolerant of rough handling.

Dr. Coe mentions two cases in which abdominal sections were made, there being four and five months pregnancy, for retro-uterine abscess and twisted pedicle of cyst, neither aborting from the operation. Even dilatation of the cervix does not involve imminent risk of abortion as it may be done for obstinate vomiting without accident, provided the membranes are not ruptured. The text-book bougie is uncertain and the membranes may be ruptured complicating subsequent artificial delivery. The gauze tamponade and water bags are invaluable for softening and dilating the cervix and lower uterine segment, but they can not be depended upon to excite regular uterine contraction unless the membranes are ruptured. Their use should always precede manual dilatation, except in those cases where time is life to the mother.

The patient should be delivered promptly after full dilatation.

Anesthesia is not necessary for the use of the gauze and bags. Rigid asepsis is indispensable in all manipulations, the same care being observed, with regard to the field of operation, the sterilization of hands and instruments, as in minor gynecological operations.

Dietetic Causes of Inebriety.

Dr. T. D. Crothers (Journal of the American Medical Association) concludes an article on this topic as follows:

1. Inebriety is a most complex neurosis. The causes are equally complex, and include all the various states of degeneration which influence and disturb nutrition.

2. Obscure indigestion begins, and for this drugs and bitters containing alcohol are used. The narcotism which follows is so grateful that it is continued.

3. Dietetic delusions are fostered in the minds of parents and children, and from this many different forms of inebriety begin.

4. Often the most maniacal and chronic inebriates are from these delusional dyspeptics.

5. Starvation is present in many of these cases. The quality and variety of foods are deficient, and defective nourishment follows.

6. The uniformity of taking foods and the quality and variety are essential. This and nutritional rest and mental anxiety are important factors.

7. The inebriety following these conditions is successfully treated by elimination of the toxins and special correction of the nutrition.

8. Nutrition is a very active cause in the production of inebriety, and should receive a careful study in all cases.

The Management of the Cord.

Is a sloughing process at the child's navel consistent with asepsis in childbed? This question is very fully answered in the negative by Dr. Robert L. Dickinson, in a most exhaustive paper contributed to the Amer. Jour. of Obstetrics.

He states that fever due to navel infection is $3\frac{1}{2}$ to 22 per cent., the ratio of septic deaths to early deaths from all causes varies from 15 to 40 per cent.

The author makes the following points: Mass ligature should be avoided. Ligatures belong on bared vessels. A hernial opening should not be closed by a granulation scar, but by primary union.

Removal should be practised at or beyond the future line of demarkation. Sloughing and pus production should be done away with. Removal alone is prevention, numberless devices and dressings spread through a voluminous literature of failure.

The obstetric nurse should not go from a pus dressing on the baby's abdomen to the fissured nipple, the perineal wound, the catheter, or to the vulva of her next case.

Conversely septic maternal discharges should not endanger the child's open wound.

Treatment of the cord consists in doing what we should do in other amputaiions, make sure there is no material left to undergo necrotic change. Isolate the vessels at the juncture of the skin after squeezing out the jelly and ligate each vessel separately with catgut or fine silk. Any oozing from the capillaries that run a short distance in the cord is readily controlled by sutures of fine silk.

Dr. Dickinson states that by this method there is no rise of temperature, no bleeding, no fetor, no discharge except serum and the adult navel will not be a dirt accumulator as it is by the present method.

Obscure Case of Abdominal Pain Complicated by Morphinism.

The Medical Age gives a description of a case by the late Dr. William Pepper:

"The face, if rightly read, may be an open answer to many an otherwise unsolved problem. We can learn much from a man's expression if we will but look. For example, here is a man whose face at once attracts and interest me, which will prove a clew, we think, to the solution of his hitherto unexplained case.

"We are told that he has been unable to work for nine years, and for the major part of that time has been in bed, owing to an illness which has lasted during that period of time. But his complaisant, contemplative, half-contemptuous look is not that of a man worn out by chronic disease. In the first place, there are not many chronic troubles which last ten years, and when they do they make their marks as they go along; the patient is slowly broken down; piece by piece his strength, his courage, and those properties which go to make up what we call 'self,' are slowly sapped. This man's face does not present such a story; it is rather the face of a man who has been accustomed to see his case baffle his doctors, without experiencing the depressing influences of an organic trouble. Then, again, he tells a different story from that which a chronic case would relate. Let us hear it.

"At the outset, nine years ago, he began to experience paroxysmal attacks of pain in the upper zone of the abdomen. These pains grew worse through the attacks, until they are somewhat relieved by spells of vomiting. Later the pain became more or less constant, with these occasional exacerbations. The matters vomited were very offensive, liquid, blackish in color, but so far as I can determine not known by microscopic examinations to be blood or bile. The pain, he says, ran across his body from the left just below the edge of his ribs, and was of such a sharply defined nature as to make him suspect that some animal was darting to and fro. His skin at the same time seemed to be hyperæsthetic; with this, occasionally, he had periods when he suffered from retention of urine. From the account it would appear that the catheter did not carry off the water until the bladder walls were stimulated to action by outside irritation, such as punching or kneading.

"The patient went into a hospital after being under treatment for two years outside without relief. Here, to quiet his intense paroxysmal pain, he was given morphine; this practice was kept up for eighteen months, until he was in the habit of taking five grains hypodermically in the twenty-four hours. Since dismissal he again experiences the pain, though less intensely, and has reduced his morphine-taking. As he lies here to-day he tells us he is here to do or die, that he is willing to undergo any operation or course of treatment, however rigorous, if he is only relieved. As we approach this case, let us first endeavor to analyze the course of his trouble. We seem to have three stages: First, the developing disease; secondly, morphine-eating; and thirdly, a decrease in morphine-taking with a recurrence of the original pain; for he confesses to the occasional use of that drug, which, after careful examination, we find is taken pretty regularly during the day.

"It has always been my experience that when morphine has been given for any length of time for the relief of pain, there occurs a mimicry of the disease on the gradual withdrawal of that drug—a stimulating of the original aches and pains, which imitate the complaint so cunningly that it is often difficult or impossible to decide their true source. We will remember this element when we reach the history of the trouble again. The fact complicates an originally obsure case.

"It was not nephritic colic; here the pain is anterior, in the renal region, along the course of the ureter, and the passage of a caculus is common. Vomiting is common, but the case is clearly not of this sort. Neither is it hepatic; true, it is abdominal, but there never have been jaundice or gallstones found after careful search. This reduces it to gastralgia or enteralgia. The position of the pain and the other signs all point to the stomach as the orignal seat of the trouble.

"This was true probably nine years ago, but what of the condition to-day? It will be necessary to eliminate the morphine element before we can study the case successfully or intelligently. Without demonstrable organic lesion, it is never safe to attempt to diagnosticate any case into which such a factor enters. Then we will study what is left; new symptoms will probably rise up which will furnish good data.

"In conquering the morphine habit it is necessary for the physician and patient to work hand in hand; there must be forbearance and patience and sympathizing encouragement on the one side, and conscientious, earnest endeavor on the other. In such a condition of things it will be possible to overcome this dread trouble, but it can be done in no other way. Simultaneously with this will be established a tonic nutrient treatment, a regular diet, and good moral control. Electricity may be used to

tone up the system. Some analgetic which is not anodyne will be given such as antipyrine. We will not attempt any lavage or nephrectomy, however, until we clear up the case sufficiently to make a diagnosis reasonably certain and not mere guess work."

The American Soldier and Venereal Diseases.

In a paper under this heading Dr. Wm. A. Hammond shows the false ideas and erroneous statements contained in Mr. Edward Atkinson's well known pamphlet, *The Hell of War*.—(N. Y. Med. Jour.)

While Mr. Atkinson is a very smart man, he has evidently made a few mistakes in his attempt to portray the extent and effects of venereal diseases among our troops in the Philippines.

In the first place, as shown by Dr. Hammond, he confounds venereal diseases and syphilis by saying that venereal diseases are constitutional.

His lack of knowledge is further shown by saying that venereal disease works corruption of the blood to the third and fourth generation. This being true only in part of syphilis, which only furnishes one-seventh of the venereal diseases.

Dr. Hammond shows that instead of the Philippines being a hot-bed of venereal disease, the climate itself is curative of such trouble.

Mr, Atkinson's statement in regard to the sanitary conditions is shown to be incorrect.

Dr. Hammond well says that if the arguments used by Mr. Atkinson in his pamphlet were acted upon it would shut out Cuba, Porto Rico and the Philippines from the rest of the civilized world.

Typhoid Fever in the Southern Camps.

Dr. Joseph F. Chmelicek, in the N. Y. Med. Jour., writes a very frank paper on typhoid fever among the soldiers and its treatment.

The doctor lays some of the blame for the severe epidemic upon the volunteer medical officers as well as the volunteer soldier himself. He says that he witnessed failures from the following remedies: The Woodbridge treatment; the iodo-phenol treatment; the indiscriminate dosing with quinine or calomel in abortive doses. The sulphocarbolates have failed in many cases, and the exclusive turpentine treatment has even proved fatal.

He mentions the following conclusions:

The camp should be frequently changed.

The division hospital is here to stay, as only in this hospital can female nurses be employed, and the proper person as attendant is the female nurse.

All soldiers should be educated in plain sanitary hygiene.

The sooner the patient takes to bed the fewer complications are likely to follow. The hæmorrhagic and perforation complications develop in patients who walk until they fall and who use indigestible food during the first stages of typhoid.

Milk is not suitable for every case; many of the patent foods on the market, especially "predigested" foods, must replace it in many cases.

Sugar used during convalescence will cause relapse quicker than solid food.

Every case requires special study.

The severest case, with hæmorrhages and other complications, may get well, while the lightest case, apparently doing well, may prove fatal. Never give up a case as hopeless.

All the patients in the southern camps showed a remarkably low pulse rate even with high temperature, for which he could offer no explanation.

Treatment of Patient After Abdominal Section.

He considers spartein sulphate of decided value as an immediate stimulant to the heart while digitalin may be used for a more lasting effect. The physiologic action of alcohol is so nearly identical with that of ether and chloroform that its utility is to be doubted when the system is saturated with one of these agents. Calomel is the most generally satisfactory purgative, He thinks the rectal tube of little value for the relief of gaseous distention. Morphine constipates the bowels, checks elimination and almost always produces more or less nausea. In its place he uses codeine phosphate and chloral hydrate by the rectum for the relief of pain. To relieve the intolerable thirst he employs the rectal injection of normal salt solution, a half-pint being given every two to six hours. A half-ounce of very hot water by the mouth may be allowed every hour after the first four. Bonifield considers that any surgeon who does a capital operation owes it to his patient, his profession and himself to see that everything possible is done to secure recovery. For this reason, only when it is absolutely unavoidable should an abdominal section be done in the country and the after-treatment left to a practitioner inexperienced in this work.

† Bonifield, abstract of a paper presented at the recent meeting of the American Medical Association.

Conservative Gynecology.

Dr. Joseph Taber Johnson in delivering his Presidental Address before the 1899 Meeting of the American Gynecological Society called attention to the uselessness of the ordinary vaginal hysterectomy for cancer, reported in the American Journal of Obstetrics for July.

Dr. Johnson believes that cancer is much more frequently found among the rich and well to do than among the poor.

According to Williams over-nourishing and easy life are predisposing causes. Stress is laid upon the early dignosis and the fact that this falls to the general practitioner. Do not temporize with a suspicious ulceration of the cervix about the menopause.

The only operation permissible is the abdominal, done early, removing all suspicious glands and adjacent tissues.

In regard to conservative gynecology, Dr. Johnson makes this striking statement that "it requires a higher order of ability and is a truer and nobler triumph of our art to save an organ or part of an organ than it does to destroy it by sacrificial surgery."

A very clear distinction is drawn between false and true conservatism.

The consensus of opinion is in favor of leaving an ovary or a portion of the ovarian substance whenever possible, in young women especially.

The address was closed with the propecy "that during the next century some gynecologists may practice conservatism all the time, that all gynecologists will practice it some of the time, but they *all* will never practice it *all* the time.

Dr. I. N. Love on George M Gould.

"Even though you fall a victim to real estate sharks, grain gamblers, ingrate employes, alleged friends (whose ideas of friendship are to work their friends rather than work for them) and perchance a kick from the hoof of the learned pedantic, pedagogic, pale gray ass who edits the Philadelphia Journal of Hypocrisy, don't mind,but go on sawing wood on your own wood pile and use the sawdust for sprinkling the slippery places which encompass you, that you and others may not fall, and, figuratively speaking, break your bones and bruise your flesh. * * * And so, if disturbed by a skunk, the only thing to do is to thank your stars it's no worse and give it in return absolute avoidance and silence or a shotgun, but then ammunition is wasted on such poor game, and avoidance and silence is better.—Dr. Love, in June Medical Mirror.

Enlargement of Lymphatic Glands Due To Influenza.

Dr. S. H. Dessau, (Medical News, Aug. 12, '99):

I have lately seen a number of cases of enlargement of the lymphatic glands of the neck and of the inferior maxillary region as a sequel of influenza. This condition is undobutedly due to a septic process which is going on in the vault of the pharynx. Dr. Jacobi called attention to this fact some years ago, but not long ago it was supposed that the enlargement of these glands was usually tubercular and it was customary, especially among the German surgeons, to extirpate them at once. In some of the cases I have seen as a sequel of influenza they go on to suppuration, but as a rule they subside under treatment of the catarrhal process. I recently saw in my clinic a case in which two glands were involved and the swelling was so great that the lobe of the ear was elevated. At one time they became fixed, which is usually an indication for surgical treatment. The child's mother was very anxious to have me remove the glands, but I persuaded her to wait. Under the internal use of calcium chlorid, alternated with iodid of iron, the swelling gradually subsided and the child made a perfect recovery. As an early treatment of the adenitis I have found a local application of twenty-per-cent. preparation of oleate of mercury most satisfactory.

Alcohol as a Remedy in Disease.

Dr. J. H. Yarnall, in Medical Summary, does not think much of alcohol as a medicine.

He says that alcohol is not a food, and that even as an emergency stimulant it can be replaced by something better. Alcohol does not warm the body, the apparent warmth of the surface being at the expense of the internal organs. Travelers in the far North have found that by total abstinence they were able to endure greater hardships and to walk longer journeys.

Dr. Yarnall thinks that alcohol, instead of preventing disease, really makes the system more susceptible. The soldiers in India who used no alcoholic beverages were less in the hospital, endured fatigue and exposure better, and were less liable to disease than those who drank even moderately.

He quotes Dr. Kellog as saying that alcohol could be dispensed with in the compounding of medicines. A number of authors and authorities are quoted to sustain the objections against this agent as a medicine and the author concludes that we should no longer use alcohol either as a preventative or as a curative medicine.

Dysmenorrhea.

Dr. R. A. Murray presented a paper with this title at the Northwestern Medical Society. He said:

Dysmenorrhea, or painful menstruation, through its regular recurrence and dire effects in depreciating the vitality, limiting the usefulness, and destroying the happiness of women, is a subject demanding constant study. Frequently looked upon as a necessary consequence of the menstrual function, palliative measures in the shape of narcotics, stimulants (particularly alcoholics) are administered to the young as well as the adult female until habits of life are formed which often result in wrecked lives and fearful domestic troubles.

Clinically the condition may be discussed under the headings of (1) congestive or inflammatory; (2) membranous; (3) obstructive or mechanical, and (4) neuralgic, and each variety may be complicated by acute or chronic disease of the tubes, ovaries, or uterus. Ovarian dysmenorrhea, as usually described, is really ovarian or tubal disease complicating one of the foregoing forms.

Theoretically the treatment of all forms of dysmenorrhea may be divided into that which is directed toward easing the pain and causing the flow to be free, and which usually relieves all the symptoms, and that which is instituted between the periods to remove the cause. Congestion of the uterus may be relieved by the use of heat applied as a foot-bath, the feet being immersed for twenty minutes in warm water the temperature of which is gradually increased. The hot sitz-bath is of value, as are also hot fomentations to the abdomen, with or without rubefacients, such as turpentine or spirits of camphor. Dry heat in the form of the hot water-bag may also be applied to the lower lumbar region and the inner surface of the thighs. Warm drinks may be administered but the use of alcohol in any form is to be deprecated. In cases in which arterial tension is high, aconite, pulsatilla, and veratrum viride, in small doses frequently repeated, are very efficacious. Apiol in capsules and salicylate of soda, if a rheumatic diathesis exists, are often effective. Most of the coal-tar products relieve the pain, particularly if they are combined with codein in half-grain doses. Morphin and other preparations of opium are occasionally necessary but should be employed most cautiously. In full-blooded women the intense uterine congestion may produce a marked disturbance of the circulation. In such cases puncturing of the cervix will give relief and bring on the flow. In a few cases in which I have found the patient delirious with pain, and in one in which there was marked congestion of the brain and the patient was in a comatose condition, great relief followed a free bleeding from the arm.

In cases of obstructive and membranous nysmenorrhea, after tonic and hygienic treatment have been employed without avail, a local examination should be made to ascertain the cause or the condition. Here I would most earnestly condemn the indiscriminate employment of vaginal examination in young girls without having previously exhausted all hygienic and medicinal means of relieving their dysmenorrhea. Before resorting to the vaginal examination, rectal touch should be employed to determine the size and position of the uterus and appendage. To the educated hand this method of examination is as satisfactory as that made by the vaginal route. If an operation seems indicated this and the preliminary vaginal examination should be done under ether to avoid shocking the susceptibilities of a young girl. Stenosis of the cervix, particularly at the internal os, and endometritis are among the most common causes of this form of dysmenorrhea. Dr. Sims advised and for a time practised splitting the cervix by bilateral incisions extending up to and including the internal os for the relief of this condition, but the operation is somewhat dangerous, frequently ineffiient, and leaves the patient with a lacerated cervix, The introduction of graduated sounds, followed by intrauterine applications of iodin, carbolic acid, nitrate of silver, and other caustics, has also been employed but the method is nos only ineffectual but is attended by the danger of infection and of sitting up pelvic peritonitis, Electricity has also been used and one cannot deny that the cervix uteri can be dilated almost painlessly by means of graduated sounds attached to the negative pole with the positive pole upon the abdomen and the application of the galvanic current—from five to fifteen milliamperes—for five minutes at frequently repeated sittings. The faradic current will also relieve the symptoms. My experience with electricity, however, has been disappointing because the results obtained have not been permanent, and it is my belief that this is due to the caustic action of the zinc pole upon the endometrium. The best method of treating these patients is by over-distention of the cervix by means of a manual dilator, a thorough curettage, and an application of carbolic acid. The operation should be done under anesthesia and should be preceded for a

short time by the employment of boroglycerid tampons. The curettage should be preceded and followed by an intra-uterine douche of hot sterile water. If proper precautions are taken the dangers are *nil*.

The neuralgic variety of dysmenorrhea is difficult to treat. General treatment should be instituted; but little else can be done. The patients seem abnormally sensitive to pain and to the worries and cares of life, and slight shocks to their emotional nature cause great aberrations in their vital functions. Locally little is to be made out but a sensitive or prolapsed ovary or a slightly atrophied or congested uterus. But even after these abnormalities have been corrected, the patients still complain. It seems to me that what such a patient most needs is not rest but a healthful occupation which would divert her mind. It is important that this condition be recognized lest the physician be persuaded to prescribe anodynes to such an extent that a habit is formed.

Texas Cattle Fever and the Transmission of Malaria.

The Bulletin of the North Carolina Board of Health has a very interesting and timely editorial on Texas Cattle Fever and Malaria.

At several points in the State, during the past month, Texas cattle fever has appeared, and as August and September are the months in the year when malaria is most prevalent, it is a good time to consider the matter.

The Bulletin further publishes the authoritative paper by Theobald Smith on this subject which appeared in the New York Medical Journal.

Dr. Smith has been at work on splenic fever in cattle since 1888, and its transmission by ticks is certainly and definitely settled by his investigations.

The analogy between this fever in cattle and malaria in man is striking, and the theory of the transmission of malaria by the mosquito must be considered as well nigh a positive fact. At any rate, it is the best available point to attack the disease.

Much of the evil which manifests itself in the increasing prevalence of the mosquito is due to the carelessness and indifference of private persons, corporations, and even public authorities, who create and perpetuate the conditions which favor the silting up and the partial drying up of our streams and smaller water courses and the stagnation of surface water. The inoculation theory of malaria is a safe one with which to begin the warfare against the disease, as it has the support of analogy, of partial demonstration, and of almost all the older theories.

A Convenient Method of Cleaning the Percentage Tubes of the Hæmatokrit.

Charles S. Bosenbury, in Jour. of Applied Microscopy, said: In using the percentage tubes of the hæmatokrit, it is absolutely necessary that they be perfectly clean. Since they have so small a bore, it is evident that they cannot be cleaned by any ordinary process. In the laboratories of Purdue University, the method used is as follows: immediately after making a count, the tubes are placed in a dish of water for a few moments. This serves to loosen up what blood there may be in them. A horsehair loop containing a thread, is then run through the lumen of the tubes. It has been found convenient to use this horsehair loop, as it is stiff enough, and of sufficient strength to carry the thread through. A needle might be used, but it is easier and takes less time to slip the thread through this loop than to thread the needle. After the tubes have been cleaned by the thread, it is necessary to dry them. In drying, a small bicycle pump, with a piece of rubber tubing fitted over the nipple to hold the tubes, is employed. In this way the tubes can be dried without any moisture getting into them. Both tubes can be cleaned and dried within five minutes, or less.

Causes of Nervous Diseases.

Dr. John Punton, (Kansas City Medical Index-Lancet, May): 1. Inflammatory conditions, which are caused almost always by microbic infection.

2. Degenerations, which usually result from excessive nervous strain, syphilis, exposure, poverty, chemical poisons or alcohol.

3. Diseases of blood vessels, often due to Bright's disease, gouty diathesis, alcohol, syphilis, over-feeding and chemical poisons.

4. Functional spasmodic diseases, when general in character, like epilepsy and chorea. Writer's cramp and wry neck often follow infective fevers; hereditary influences often play an important part.

5. Functional sensory disorders are common in women; they include more especially the various forms of neuralgia.

6. General nutritional disorders, like neurasthenia, are more frequent in youth and middle age and in new and active civilization.

7. Diseases of the peripheral nerves are caused by injuries and poisons, like alcohol, gout, rheumatism, diabetes, etc.

Medical Examining Boards.

Dr. Brodnax has a letter in the Medical Summary on this subject.

The doctor is of the opinion that there should be no Examining Boards and no Code of Ethics. His reasoning is not very clear, but such as it is, we see no reason why there should be examinations in medical schools or in literary colleges; these examinations have worry and expense attached to them; why not do away with all selection and stimulus to work? The doctor thinks that a physician who has practiced twenty odd years in one State very successfully should not be required to stand an examination before moving to another. Such movings are so extremely rare that we have never heard of one. Doctors are not in a hurry to leave a successful practice of even five years standing; not enough so to justify the calling of an extra session of the Legislature to pass a law in their behalf.

Dr. Brodnax knows perfectly well that State laws regulating the practice of medicine are beneficial in every way; that they work hardships on no one except the undeserving and unscrupulous, but he would rather take sides with the kickers against law and order, hardly realizing, perhaps, that the way leads to anarchy and ruin.

Mosquitos and Malaria.

Dr. Manson and Surgeon-Major Ross have decided that the malarial parasite is often disseminated by means of the mosquito. The mosquito sucks the blood of a person suffering from malaria, and imbedded in the red blood corpuscles are the malarial protozoa. The parasite flourishes in the interior of the mosquito, and this insect having gorged itself with blood, seeks the nearest water to lay its eggs and die. In this way the malarial micro-organism is conveyed to water and propagated. The moral of this discovery is that all water for drinking and cooking purposes in tropical or sub-tropical countries should be well boiled and stored in accurately covered vassels before use. The storage of the boiled water is most important, as pure water may become polluted in a few hours.

The Trustful Medical Man.—One, Harry Van C. Homans, of the brokers firm of Eliott & Homans, New York City, has filed a petition in bankruptcy. The list of his creditors is headed by the names of twenty-nine doctors, to all of whom he owes money.—*St. Louis Courier of Medicine.*

The Diagnosis and Treatment of Urethral Stricture.

A large part of the average physician's practice is taken up with diseases of the male urethra and in some of these cases the exact condition is somewhat obscure, and consequently treatment is not satisfactory to the patient or the doctor.

H. Temple Mursell, in Treatment, mentions the following points in the diagnosis, difficult urination in patients under 50 years, above this age we should look out for prostatic disease, gradual diminishing of the stream, frequent micturition, rarely hematuria which may be from the bladder, kidney or urethra, dribbling urine, usually worse at night, the use of the bougie, which must be done skillfully or we may diagnose stricture when there is none, or make false passages.

In introducing a bougie, it should be kept down on the floor of the urethra until the point passes the lacuna magna on the upper wall just within the meatus.

The electric urethroscope and inflating apparatus is recommended.

The author thinks intermittent dilatation will cure the majority of cases, hard cartilaginous strictures need internal urethrotomy and he prefers the Maisonneuve type of urethrotome—these cutting from before backward as preliminary dilatation is not necessary for their use.

Hemorrhage should not be feared.

Periodical passing of the bougie must be kept up or the stricture will come back worse than before.

In most cases of summer diarrhœa the astringent action of the bismuth salts is a very desirable one, and if in addition the salt acts in a marked degree as an antiseptic, the results obtained are necessarily more satisfactory. The faults as well as the merits of the older preparations are too well known to need mention. Certain it is, that with children particularly, an efficient and palatable form of bismuth is a desideratum. The report comes from the children's Hospital at Berlin (Kaiserin Friedrich Kinder Krankenhaus), that Bisol in 3 to 7½ grain doses given three times a day in aqueous solution, is followed by the best results in cholera-infantum. Both diarrhœa and vomiting were promptly checked and recoverery ensued in a few days. In addition. regulation of diet and the exclusion of milk are, of course, of prime importance. Like favorable results ensued in adults with acute diarrhoea, in typhoid, and in intestinal tuberculosis. Bisol acts well in gastralgia and vomiting from any cause.

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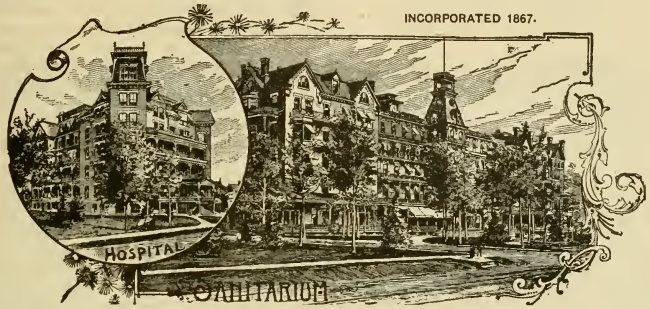

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Literature on Application.

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27

Operations for Loss of Nerve Substance.

The importance of nerve supply to any part of the body is hardly less important than a proper blood supply.

As we learn more about the nervous system, we find that the nerves do more than convey impressions to and from the periphery and the centre, they have an important office to perform in assisting the nutritive function.

A divided nerve means not only loss of sensation and motion, but certain trophic changes are set up in the part cut off from nervous influence, producing atropy and loss of function.

Sir William MacCormac, in Treatment for July 27th, calls attention to the fact that operations for the union by suture of divided nerves are now frequent and very successful.

A nerve may be grafted on to an adjoining nerve when the loss of substance is great. A number of cases are quoted to show that the operation may be done successfully in seemingly very desperate conditions. The author mentions six different methods for the treatment of cases of loss of substance and separation of the ends of divided nerves hitherto suggested and practiced upon animals or in man:

1. Transplantation into the gap of a piece of nerve taken either from the same species of animal or from another species.

2. Uniting the peripheral end of the injured nerve to an adjacent uninjured nerve. Nerve-grafting (*greffe nerveuse*).

3. If the defect concern two adjacent nerves, but at different levels, the union may be effected, as already described, by a combination of cross-union and grafting where practicable.

4. A pedunculated nerve-flap, either single or double, may be employed, a single one being taken, of course, from both ends.

5. The divided ends of the nerve may be partially encased in a bone drain, which serves as a means of fixation, and also a conducting medium for the new nerve fibres to travel along.

6. The superiosteal resection of a portion of the shaft of the long bones, of sufficient length to allow the divided extremities of the nerves to be easily approximated and united by suture, has been successfully adopted.

In operations for loss of nerve substance we must prevent cicatricial material from forming between the divided ends, as this hinders the projection of nerve fibres from the central towards the peripheral extremity. The new fibres travel along the interposed medium, procured either by implantation of a portion of new nerve, or by the flap method, or through the decalcified tube of bone. Even sutures of catgut, employed to draw together the nerve extremtiies, although we are able to bring them actually into contact, will serve as a good medium for the new nerve fibres to traverse. These media seem to hinder the intrusion of cicatricial elements, as well as constituting a new road for the new fibres to travel along.

An Act of Medical Heroism.

The Lancet records the following instance of medical heroism: A man swallowed some phosphorus paste in beer. The police sent for Mr. R. J. Burns, a surgeon of Sunderland, who promptly attended, bringing a stomach pump with him. Unfortunately, the pump was out of order, whereupon the surgeon passed the tube and sucked out the poisonous contents of the man's stomach with his mouth. Apart from the personal danger attendant on such a proceeding its repulsiveness is a condition adding materially to the nobility of the doctor's undertaking. Unfortunately, the heroic act was unsuccessful, for the patient died, while the doctor himself suffered from serious, though happily not fatal, symptoms of poisoning. There are heroes everywhere and in all walks of life; but this devotion, not only regardless of danger but unstimulated by the suggestion of romance, and under circumstances peculiarly repulsive to human sensibility, and in our judgment in excess of what duty absolutely demands, belongs to a field of opportunities especially common and incidental to the medical profession, which may congratulate itself on the possession of members like Mr. Burns, who rise to the opportunity.—*New York Medical Journal.*

Nitrous Oxide as an Anesthetic.

Dr. S. Ormond Goldan, in the N. Y. Med. Journal, is quite an enthusiastic advocate of nitrous oxide as an anesthetic in minor operations and as a preliminary step in the administration of chloroform or ether.

He admits that it requires considerable skill, that it must be kept under pressure, that two cylinders should be carried as there is no convenient way of telling when one is nearly exhausted, that it does not induce muscular relaxation, that it does favor venous oozing, that it does not in any way lessen the dangers of ether or chloroform when used in conjunction, that a special apparatus is necessary.

After making these admissions it would seem useless to enumerate any advantages, as compared with the standard agents for this purpose, ether and chloroform.

A SUPERIOR INTESTINAL ANTISEPTIC

IN THE TREATMENNT OF

Enteritis, Dysentery, Infantile Diarrhœa, Typhoid Fever, Intestinal Catarrh, Diarrhœa of Phthisis, etc.

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THE BISMUTH SALT OF TETRAIODOPHENOLPHTALEIN (NOSOPHEN)

May be administered for an unlimited period without producing harmful effects, rendering the drug especially valuable in the treatment of chronic intestinal troubles.

Dose for Adults: 5 to 15 grains, three to five times daily.

Antinosine (the sodium salt of nosophen)—**soluble.** In 1 per cent. solutions superior to bichloride of mercury, carbolic acid, peroxide of hydrogen, permanganate of potash, etc., as an antiseptic fluid. Applied in 50 per cent. solutions it supplies a treatment for chronic leg ulcers excelling any other; surprising results are on record in very old cases.

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Phenalgin in Pain and Pyrexia.

In selecting a drug for the treatment of any disease, the physician considers the evil effects that may attend its employment with the same degree of care that he does the immediate relief it may afford his patient.

The fact that recent discoveries of the synthetic chemistry of coal tar products have given us substances which do not cause the deleterious effects of the earlier opiates, should not disguise the certain specific disadvantages which must be considered in their suecessful employmant in medicine.

The engendering of the drug habit, and interference with the normal secretions of the body frequently result from their use; depressing effect upon the heart and cyanotic conditions are occasional results from the administration of most products of synthetic chemistry, which are designed to act as analgesics or antipyretics.

These objectionable features may be controlled and prevented, and it is quite possible that many fatal terminations of diseases in which they have been averted, had a proper and stimulating antipyretic or analgesic been administered.

Phenalgin is a synthetic coal tar product containing ammonia in a nascent state. The ammonia is liberated on entry into the stomach, being loosely combined, and hence acts as a tonic stimulant, i. e., it does not assert its power over the heart's functions above the normal point, but as Hofheimer says (New York Medical Journal, December 24th, 1898): "It stimulates the pulse rate for a short time after taking, and then the heart's action gradually slows down with a strengthening of the first impulse."

As a hypnotic and anodyne, the use of phenalgin is never followed by symptoms of depression; as it is a cardiac stimulant the care necessary in the administration of other coal tar derivatives is not required in the employment of this drug; and since it is rapidly eliminated by the emunctories through stimulation of the glandular system it is by far the safest agent within the physician's reach.

Phenalgin acts specifically upon the great sympathetic nervous system, valuable results being obtained in reflex neuroses. In the depressing conditions of unrest, undue apprehenion and cephalagia, which frequently succeed the excessive use of alcoholic stimulants, phenalgin in ten-grain doses gives prompt relief and induces refreshing sleep; and in nausea due to reflex causes given in small doses (one or two grains) dry on the tongue, it has completely controlled the attack.

The dosage of phenalgin ranges from 5 to 20 grains, according to the needs and conditions of the patient. It is compatible with quinine, salol, the bromides and similar drugs as may be desired.

Phenalgin is the only C. P. ammoniated synthetic coal tar product and should not be confounded with any inferior drug advertised to the medical profession as an ammoniated phenylacetamide.

It is sold in one-ounce bottles only, in either finely powdered form or in 2½-grain tablets, the bottles having the seal and imprint of the Etna Chemical Co., New York, U. S. A., and the tablets the letter "E" impressed in each tablet. Phenalgin is sold by all druggists.

To avoid substitution, it is well to prescribe one ounce original packages of tablets giving full directions, as they are not to be found upon the label. The following inscription is to be found on each bottle: "The contents of this bottle to be used as an ingredient in dispensing prescriptions prepared in accordance with a prescription of a qualified medical practitioner."

The Cancer Microbes.

Dr. Roux, of the Pasteur Institute in Paris, according to the American Microscopical Journal, disclaims all knowledge of Dr. Bra, the discoverer of an alleged microbe of cancer, and affirms his disbelief in the authenticity of the discovery. Another cancer microbe has been described by Dr. Plimmer, of London. He claims to have isolated certain micro-organisms which, he believes, stand in causal relationship to cancerous growths. These organisms possess great vitality, and multiply under conditions which prove fatal to most other pathogenic microbes. They are capable of cultivation; and inoculation of animals with these cultures, Dr. Plimmer says, is followed by the production of carcinoma. The organism differs in toto from the one described by Dr. Bra, of Paris.

St. Louis Courier of Medicine.

Days and nights are ten years long with the Courier of Medicine. A day's work was from 1879 to 1889, then rest until 1899, when it wakes up and goes hard to work again. The journal will appear each month and will be devoted to discussions of a scientific nature, to papers on scientific topics and to carefully made reviews.

We extend a hearty "good morning" and hope the editor may be able to carry out to the letter all his plans and promises.

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Carcinoma of the Tonsil.

J. C. Connal (British Medical Journal.)

In a woman aged 60 there was a well defined swelling about the size of a pigeon's egg at the angle of the jaw and extending up behind the rannus on the right side, the right tonsil was enlarged and its surface ulcerated, the uvula was pressed upwards and to the opposite side and the right anterior pillar and adjoining surface of the soft palate was hyperemic and swollen. There was no involvment of the tongue. It may be noted her mother died of cancer of the breast, and a brother died of a tumor on the right side of the chest at 40 years of age. A portion of the tonsil was removed and microscopical examination revealed it to be a carcinomatous growth.

Contrary to what is usual in malignant diseases of the tonsil, pain was not an early symptom in this case, there has been some slight difficulty in swallowing but very little pain. Patient at first refused operative treatment, but afterwards portions of the tonsil were removed, giving the patient relief.

Hagee's Cordial of Cod Liver Oil Compound.*

I have used Hagee's Cordial of Cod Liver Oil Compound in my practice for some time past, and unhesitatingly pronounce it among the very best of tonics, reconstructives and digestives within the reach of the general practitioner. I cannot recall a case, where I have prescribed it when the effects resulting were not immediate and satisfactory. I have yet to find a stomach that would not retain it, and where it has not assisted in the retention and digestion of other nutritatives.

I have used it in advanced stages of consumption with the best results, and in other affections of the air passages and lungs and can trace absolute cures to its use alone. I have prescribed it in connection with other remedies in the treatment of rheumatism with the most gratifying results, and have found it a safe reliance in all cases of nervous prostration and general debility.

I recall one case in which the results following its use were little short of miraculous. The patient was a man of thirty-five years of age, and when I was called in his case presented all conditions of incipient consumption. Through disease, overwork and neglect of himself his system had been completely shattered. He was reduced to almost a skeleton; was troubled with a cough, had hectic flushes and his digestive organs were badly impaired. After taking four bottles of the compound the cough left him, his appetite returned, he began to gain strength and to take on flesh. He is now attending to his business as usual, and assures me he never felt better.

While the effects in his case are the most remarkable I have to record, the results in several other cases are but little less astonishing, and I most heartily endorse Hagee's Cordial of Cod Liver Oil Compound.

*Jos. R. Clausen, A. M., M. D.

A Lesson in Hygiene.

A small book might be written to prove that a modern sleeping car is the most successful agent for the distribution of disease that is known to mankind, but even the Devil is entitled to his dues, and the other side of the picture is seldom seen. Few persons realize the amount of labor and care that are taken to keep a sleeping car clean; the thorough cleansing given to each car at the end of the run renders it comparitively safe and comfortable, and the system might be examined with profit by many hotels and some housekeepers.

When a palace sleeping car reaches its destination the carpets are removed and thoroughly beaten, every scrap of upholstering is taken out and dusted, the mattresses and bedding are sunned and ventilated and then subjected to a blast of compressed air. This blast not only acts as a powerful cleansing agent but it softens the mattresses and raises the nap on the blankets, making them as soft and thick as when new. The entire interior of the car including floors, walls, metal work and glass is scrubbed with water and castile soap. If vermin is discovered in a car, the rules require that the car shall be torn to pieces, if necessary, to get rid of the pest. After treatment of this sort a sleeping car is as clean as a public conveyance can well be.

The inexperienced traveler is always clamorous for a "through" car he would ride half way across the continent, or all the way, without changing cars; but if it were possible on a transcontinental train to change sleeping cars every twenty-four hours and step from a dusty, travel-stained into a fresh, clean car, the effects on the passenger would be nearly equal to that of a refreshing bath. It is easy to grumble at the annoyances of travel, but after all the comfort and comparative cleanliness of a palace car is one of the wonders of modern progress.

THE "Allenburys" Foods

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The "Allenburys" Milk Foods so closely approximate in composition to the natural food as to supply an artificial diet almost identical with, and in practice found to be a reliable substitute for, the mother's milk. So much so is this the case that an infant can take these Foods and the breast alternately without any disturbance to its digestive organs.

All ordinary substitutes for the mother's milk fail in some important attribute; thus the usual substitute, cow's milk, differs materially in composition, which no amount of mere dilution can correct, being deficient in fat, albumen, and lactose, whilst the casein is in excess. Further, as obtained in towns, cow's milk invariably swarms with bacteria, many of which are pathogenic to the alimentary canal of the infant.

ALLEN & HANBURYS, whilst accepting sole responsibility for the processss of manufacture and the chemical composition of these Foods, wish to add that the further statements above made are based not on their own *ipse dixit*, but on the accumulated experience of members of the Profession who have been good enough to communicate the results of their observations.

THE

"Allenburys" Milk Food, No. 1,

For use from Birth to Three Months.

Is prepared in the form of a dry powder, and is made from cow's milk, from which, after the proximate composition has been ascertained, the excess of casein is removed, and the deficiency in fat (cream), soluble albumen, and milk-sugar corrected. The method of preparation renders this Food sterile, and *boiled* water alone is required in preparing it for use.

Infants reared by hand should be brought up on this Food until they are three months old.

THE

"Allenburys" Milk Food, No. 2,

For use from Three to Six Months.

About this period (three months) it is found that the infant requires, in consequence of the development of the digestive organs, a somewhat more sustaining form of nourishment. This is best obtained not by increasing the amount of indigestible material, as is usually practiced, but by affording in addition to the milk a digested food

This Food contains, besides the constituents of the No 1 Food, maltose, soluble phosphates, and albuminoids derived from whole meal. There is, however, no unconverted starch left in the Food, which at this age the infant would be unable to digest.

These two Foods may be exclusively employed for the first six months of infant life, if the child is to be entirely raised by hand. As is, however, more often the case, the mother herself is able only partially to feed her child, and has to be assisted by artificial nourishment. It has been found by experience that these foods, *par excellence*, can be so combined with a result beneficial alike to mother and child. With the common substitutes this is never found to answer. The natural and the artificial foods disagree, and produce sickness, if the child has not already instinctively refused to take the breast for the more satisfying but indigestible bottle.

After six or seven months the diet should be changed from the **"Allenburys" Milk Food, No. 2,** to the **Malt Food. No. 3,** in which, though the starch is partially digested, yet the predigestion is not carried to such an extent as to leave nothing for the infant's stomach to perform —a course likely to retard the development of the natural digestive powers. *This is the Food so widely used and known for many years past as* **Allen & Hanburys Infants' Food.**

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The New Method of Administering Creosote.

In the treatment of consumption and other wasting diseases, to maintain the nutrition of the tissue cells and thus keep their resisting power at the highest pitch is the one important factor.

The carbohydrates, being a cheap and efficient form of food make up almost four-fifths of man's every day diet in our climate, and therefore to ensure that the starchy foods are properly digested and assimilated is to largely bring about that most desirable desideratum, the up-building of the patient. Compared to this strengthening and revitalizing of the tissue cells by making sure that they receive the proper amount of nourishment, every other form of medication sinks into insignificance.

Maltine is a reliable preparation of diastase which is strong in digestive power and can rapidly convert the insoluble elements of the food into soluble forms, so that they are absorbed, and thus the integrity and enrichment of the blood is assured.

It is also well known that phosphorus is a very important part of protoplasm, being always found closely associated with the vital principle, wherever manifested, both in the vegetable and in the animal cell. Recent investigations confirm the old empiric idea that phosphorus plays an essential part in the development and growth of living cells and that it has a real power to strengthen and stimulate the vital functions.

Maltine being prepared from wheat, oats, and barley is especially rich in phosphates, and the contained phosphorus in this malt preparation is in a stable and permanent form. More than this Maltine increases the appetite and has proved itself to be an admirable vehicle for and adjuvant to many other useful drugs.

Creosote has won its way into therapeutics by real merit. By results it has proven itself to be a most efficient remedy in the treatment of phthisis, and it is the one drug now relied upon to combat the ravages of this disease. Creosote and its cogenors—the members of the guaiacol group—possess decided antiseptic and antitoxæmic action, and prevent or minimize those fermentative processes which contribute so largely to failure of the digestive processes in every chronic wasting disease. Whatever may be the real secret of its modus operandi, one fact is prominent, that creosote increases the appetite and the digestive power, and subserves the well being and the up-building of the patient.

A combination of Maltine and Creosote can hardly fail to be an efficient and reliable remedy; one especially adapted to the treatment of chronic nervous and wasting diseases; and this combination will add one more to the valuable preparations of Maltine.—*Journal of Medicine and Science, July, 1899.*

Lacto-Somatose.

Lacto-somatose is now generally considered as a prominent food and restorative in the treatment of gastro-intestinal diseases attended with marked exhaustion due to the drain of fluids from the system and the marked impairment of the digestive functions. Hence, a few remarks as to the manner of conveniently preparing solutions might not be out of place. The simplest way of dissolving the preparation is to place the desired dose upon the surface of about one-quarter glassful of hot water and allow it to dissolve without stirring. This will require about 10 to 15 minutes, when a clear solution of agreeable taste and appearance is obtained, which may be drank in its own form or mixed with ordinary fluids, such as milk, soups, gruels, etc. Another simple means of dissolving lacto-somatose is to sprinkle it upon hot milk or broths with a dry wire sieve. A still other method is to stir it into a smooth paste with a little water before adding the remainder of the solvent, but this may be conveniently replaced by the above methods. The chief points to which attention has been particularly directed with reference to the therapeutics of lacto-somatose comprise its large percentage of assimilable albumins, rendering it a prompt and efficient tonic and food; its beneficial action upon the digestive tract, stimulating the appetite and relieving vomiting, and its freedom from taste and odor enabling it to be added to a variety of beverages, so that it never excites repugnance even when administered for long periods.

Sanmetto in Prostatitis, Cystitis, Chronic Gonorrhea and Vocal Irritation.

I take pleasure in saying that sametto in my hands has proven its superiority to other remedies in prostatitis, cystitis, chronic gonorrhea, and general vesical irritation. I prescribe it with confidence every time, and in cases not attributable to mechanical causes I feel sure of relief every time. In gleet its action is marvelous, the worst cases yielding readily, and I shall continue its use.

ORAN E. DRULEY, M. D.
Anderson, Ind.

IT IS IMPORTANT

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Doctors Strauss and Plaut of Berlin, Klein and Schemlinski of Hamburg, and Dr. Rumpf of Gorbersdorf, give unstinted praise to Tropon as an unrivalled food value in the various processes of digestion, absorption and assimilation.

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*"Pulmonary Tuberculosis; its modern Prophylaxis and the treatment in Special Institutions and at Home." (P. Blackiston's Son & Co., Philadelphia, 1899.)

Shock in Modern Surgery.

In a most practical paper on this subject, read before the Practitioners' Society, of New York, reported in the Medical Record, Dr. Geo. F. Shrady calls attention to some very avoidable causes of shock.

Before anesthesia, it was speed, quickness, now it is technique, elaboration.

Dr. Shrady states as the causes affecting the severity of post-operative shock, anesthesia too prolonged as anesthesia without the operation will produce shock, unnecessary details of manipulative manœuvres, and the needless elaboration of our present methods of dressing wounds,

The primary consideration is to do whatever is necessary in the shortest possible time. Of two methods of procedure, the one that takes the shortest time should always be preferred.

The author further says that a grave and prolonged operation should be divided whenever possible, never for mere convenience's sake do three or four operations on the same patient at one sitting. Be careful in operations that involve peculiarly sensitive parts of the body, the cutting of large nerve trunks, section of the spermatic cord, the sawing of large bones, operations in the perineal and anal regions, about the face and neck, handling of the abdominal viscera, jarring about the head, etc., these demand an extra amount of care and watchfulness.

The doctor scores the unnecessary swathing of the patient in yards and yards of bandage, necessitating the rolling, twisting and lifting of a helplessly exhausted subject at a time when he should have every advantage of quietude, rest and warmth.

The conclusion of the whole matter would seem to be that we are sacrificing precious time to unnecessary detail, it is not that we should operate better, but that we *can* operate quicker.

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Acute Dysentery.

In an editorial article on dysentery Dr. St. J. V. Graham (Georgia Journal of Medicine and Surgery, July 1899) states that the drug treatment of this disease resolves itself into five or six drugs—calomel, opium. ipecac, tannopine, salines and quinine. If the case is seen early when diarrhea is present, with a lead colored or brown tongue, much benefit may be derived from giving calomel ¼ grain every fifteen minutes, until six, eight or ten doses are taken. An acid saline is then administered, after which bile usually begins to flow. This is Nature's antiseptic, and no chemical compound or so-called intestinal antiseptic can be compared with it. After this has been kept up for a sufficient time for the exigencies of the case, tannopine should be administered, combined with ipecac and opium, in the form of Dover's powder, or of each drug in simple powder combination. Tannopine should be given in ten or fifteen grain doses every two and one-half or three hours, An ice bag over the belly is preferred by the writer to any form of poultice. If necessary the bowels are irrigated with a bisulphate of quinine solution—one teaspoonful to a quart of cold water. Very little quinine will be absorbed, for it will not stay in long enough. The diet should be carefully adjusted to suit individual peculiarities and the stomach digestion. Stimulants should be used as indicated. The above treatment, which is indicated in acute cases, has proved very successful. In chronic cases, however, an essentially different drug treatment should be resorted to.

Reading Notice.

The practitioner naturally seeks anything that will enhance the physiological action of a drug, render it more readily assimilable or less disturbing; and is puzzled at times to find a medium which will enable him to get the very best results frequently demanded by the conditions. Drugs that cause gastric irritability, like the salicylates, must often be abandoned (though absolutely indicated and requiring to be "pushed") because of the adverse effects set up. So, too, with turpentine, how difficult to emulsify and render it non-irritating. The bromide or iodide of potash, especially with children, has to be abandoned at times because of the nausea and vomiting so frequently experienced.

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International Conference on Prostitution and Venereal Disease.

This important meeting will be held in Brussels, September 4th and following days. Dr. Dubois-Havenith, of Brussels, is Secretary-General of the Conference, and papers will be read by such well known men as Drs. Fournier, of Paris; Neisser, of Breslau, Lassar, of Berlin; Finger, of Vienna, and by a number of others prominent as students of these questions. The committee have indicated the following as delegated to investigate conditions of prostitution in their respective countries:

Argentine Republic, Dr. Baldomero-Sommer, of Buenos Ayres; Austria, Dr. Finger, Vienna; Belgium, Drs. Bayet and J. Verhoogen, Brussels, Bosnia, Dr. Cluck, Savajevo; Chili. Dr. Valdes-Morel, Santiago; Denmark, Dr. Ehlers, Copenhagen; England, Dr. Geo. Ogilvie and Dr. Drysdale, London; France, Dr. Ozenne and Dr. Julien, Paris; Germany, Dr. Blaschko, Berlin, and Dr. Neisser, Breslau; Hungary, Dr. Rona, Budapest; Holland, Dr. Selhorst, The Hague; Italy, Dr. Tommasoli, Palermo, and Dr. Bertavelli, Milan; Norway, Dr. Axel-Holst, Christiania; Roumania, Dr. Petrini de Gaiatz, Bucharest; Russia, Dr. Petersen, St. Petersburg; Sweden, Dr. Welander, Stockholm; Switzerland, Dr. Jodassohn and Dr. Schmid, of Berne; Turkey, Dr. Von Duhring and Dr. Zotos, Constantinople; United States, Dr. Isadore Dyer, New Orleans.

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The Charlotte Medical Journal.

VOL. XV. CHARLOTTE, N. C., SEPTEMBER, 1899. No. 3.

The Relative Efficiency of Toxin and Anti-Toxin in the Treatment of Tuberculosis.*

By Dr. John H. Williams, Asheville, N. C.

While serum therapy has made immense strides in the last few years, yet we are still very much in the dark as to the ultimate action of these remedies in the human economy. We are gradually getting light upon the matter, and earnest investigators on both sides of the water are daily deducing such facts as will no doubt in the near future give us practical working formulas for the usage of both toxins and anti-toxins. We must concede the splendid results obtained from anti-toxin in diptheria, and Behring's work has resulted in enormous good. The votaries of the doctrine of serum therapy, I think, are inclined to base their treatment of every and all diseases that are the ascertained result of bacterial or bacillary infection upon the lines followed in that disease. That is, they rely upon the anti-toxin solely, in so far as they see fit to apply the serum treatment. I can not quite agree with them in the application of serum therapy in tubercular infection, especially in pulmonary tuberculosis. To my mind there is a wide difference in the clinical course of the two diseases. In diptheria you have a swift and overwhelming invasion of the economy and rapid formation of toxins resulting. If not controlled somewhere, either by nature's own resistive forces suddenly aroused, or artificial aid from outside, we know the course is short and the vital forces are overthrown. It is now of supreme importance that time should be gained that the economy may manufacture its own anti-toxin. It is at this juncture that we come to aid with the products of the Biological laboratory. The successful result of such aid is now beyond the stage of controversy, and the serum treatment of diptheria is as firmly established as that of quinine in malaria. We have, however, in the initial stage of tubercular infection a vastly different state of affairs. Bacterial activity is not usually active enough to produce that amount of toxin that is necessary to bring about that peculiar action of the economy by which is produced the personal anti-toxin. The peculiar structure of the bacillus with the large amount of fat in its envelope retards its destruction and solution, thereby setting free the toxins.

It is quite well known that toxins are the result of pathogenic bacteria, while anti-toxin is an unknown body resulting from the resistance of the tissues of the healthy organism to such toxins. We use the anti-toxin to resist and neutralize the effect of the toxins elaborated by the pathogenic germs and not because of the fact that the anti-toxin is in any way antagonistic to the germ itself. In fact, an anti-toxin serum is a good culture medium. The use of anti-toxin may stimulate phagocytosis, and possibly thereby stimulate the germididal powers of the healthy organism.

Our first care in the treatment of tuberculosis is to produce if possible a stable condition of immunity. We wish to bring about that subtle change in the economy which gives a barren and sterile soil for the growth and propogation of the germ. We well know that many tubercular subjects acquire immunity through the natural forces of the body, and that this immunity under favorable circumstances may last through a long life. These facts are abundantly proved through the records of the dissecting room. I claim that this immunity is acquired in the economy by the resultant action of personal anti-toxin caused by the toxins thrown out by the pathogenic germs.

Koch has positively demonstrated that the guinea pig, which is highly susceptible to tuberculosis, can be made positively immune by the injection of the substance of the tubercle bacilli itself, Tuberculin R. so much so that they will resisist the most virulent infection, while control animals so infected succumb. If then, we cure tuberculosis, we must bring it about by an acquired immunity. That we do fail to bring about this immunity is lamentably true in a great number of cases, but the success that has attended the work is promising, and still better results are looked for as improvement is made in the thorough knowledge of the complex body of products that makes up our toxins and anti-toxins. The production of toxins in the

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body from the T. bacil. is very small, and immunity is slowly acquired, so slow, in fact, that mixed infection is apt to occur, resulting in caseation and rapid breaking down of tubercular masses with the septic condition that results, with high temperature and consequent exhaustion. This theory is further proved by the fact that in acute miliary cases, when all of the organs of the body are simultaneously involved, the toxins are produced in such abundance and virulence that the resistive powers of the tissues are overwhelmed and the personal anti-toxins are not formed in time, In this latter type of cases I should place great reliance upon some one of the anti-toxins, either Paquin, Fisch, or DeSchweinitz, to gain the time necessary for the economy to rally its resistive forces. It is to my mind necessary to introduce the immunizing substance early, and to continue its use until such time as the clinical history of the case would convince us that we had reached at least a stage of temporary immunity. Unfortunately, it is true, that this is a slow process. No flood of medicines, toxins or anti-toxins, intrapulmonary medication, or what not, will do more than aid nature to make untenable the human body as a habitat for the unwelcome germs.

Holding the views that I do in regard to the immunity to be conferred by the early use of the toxins produced from the body of the tubercle bacilli itself, I look forward to the day when a certain amount of immunity can be conferred upon our coming generations by early inoculation with these toxic extracts. I should apply this more particularly where there was an hereditary tendency to tuberculosis. I confidently look forward to the day when we will immunize our children against tuberculosis with the same certainty that we to-day immunize against smallpox. I am not writing a treatise upon tuberculosis, either its prevention or cure. I am simply giving my own views as to the relative efficiency of toxins and anti-toxins in the amelioration of the condition of the patients that are presented to us. But while I stand by the wayside and gather notes from the eminent workers who pass in procession before me, my mind can project the future in this great work. Possibly I may be deemed a dreamer, but I firmly believe that the next decade will mark a great advance in this direction, and within the next half century the great plague will lose more than half its terrors.

DISCUSSION.

Dr. Chas. Van Bergen :—I think Dr. Williams has given us a great deal of food for thought in his paper, but at the same time I think he has not insisted enough upon the toxin, from the fact that the anti-toxin seemed to work only from one side, and in most cases of tuberculosis there is nearly always a mixed infection by the time we discover the disease. The early stages are hardly ever discovered, and the stage where it is diccovered is generally mixed infection, and while serum in those cases will act against tuberculosis itself, yet there are so many other germs present that if we only act against the tubercular bacilli, the breaking down from these other bacilli will be such that little or no good will be accomplished. However, it seems to me that serum therapists not only use serum therapy, but use every adjunct possible. Regarding immunity, we all, I think, see immunity in tuberculosis in the future, but it will be discussed just as, at present, immunity is discussed regarding smallpox.

Dr. Chapman :—I do not know that I have very much to say, but this subject is one of a great deal of interest to me. I enjoyed the paper very much, and I think Dr. Williams has brought out fairly the line between toxin and anti-toxin. In diptheria I think it is a case of toxin. The patient dies from the large amount of toxin thrown into the system and absorbed. In diptheria the amount of toxin thrown out is very large, and we are liable to have death before the anti-toxin can be formed. I think it is best to bring this thing to a climax and destroy the toxin. There is an anti-toxin formed which destroys the toxin of diphtheria. But in tuberculosis I think we have exactly the opposite. The amount of toxin is very small. We have a temperature and a breaking down of the tissue. That is a case of pure, simple tuberculosis and the result of toxin formed in that case. That is not fatal, but as soon as that area becomes tubercular it forms a splendid breeding ground for other bacilli, and breaks down, and we have an abcess. We have a high fever with temperature of 100, or 101 or 102. That is not tuberculosis. It is septicæmia. If you can reach that tubercular area and give the patient a chance to get over that abcess he is going to get well, but whatever we do we are not going to do much with that abcess. What we are after essentially is the tuberculosis. We are trying to induce an immunity and that immunity, I think, as in every other infectious disease, is due to toxin and not anti-toxin. I think in chronic tuberculosis the patient does not die from toxæmia.

Dr. Ambler :—I enjoyed the doctor's paper very much. He said in the first place, in regard to the anti-tubercular serum that it was a good culture for the tubercle. Dr.

Williams brought out a point which I have never seen advocated—that the serum from an immune horse was a good culture for tubercular bacilli. I can conceive how we might get a serum which comes from some manufacturer who claims that the horse is immune, but if the horse has actually been immune it does not stand that that blood is going to be a good culture medium. I have been using the serum, and I do not know whether it is toxin or anti-toxin, or what it is. I have taken the work of others, and taken a great deal of it for granted. I have used the serum, and my results have been in certain cases satisfactory. I will say this, as Dr. Williams contends in his paper, that where good results have been produced with anti-tubercular serum it is always in early stage cases. Whether the patient not in an early stage is able to produce enough anti-toxin depends upon his own vitality. I agree with the doctor that the great percentage of cases of tuberculosis get over it without knowing that they ever had it. I believe that the majority of cases who become tuberculous recover without being aware of the infection, and, as I take it, this recovery is due to the production of their own anti-toxin in the patient.

The doctor referred to diptheria and compared the treatment of diptheria with a serum to tuberculosis. I do not agree that the comparison is a good one, from the fact that in diptheria you have the disease spread over a large area of mucous membrane. The disease is distinctly a disease of the mucous membrane. In tuberculosis it is somewhat entirely different. In diptheria cases the application is made directly to the whole surface where the disease is going on. In tuberculosis it is different. Take a case of tuberculosis that has progressed to the stage of caseation, and whether we apply anti-toxin by any method we certainly do not apply our remedy to the most diseased area of the disease, while in diptheria we apply the remedy over the whole area upon which the disease is spread. I agree with Dr. Chapman perfectly when he says that in the application of these remedies our aim is first to render the patient in that condition where the disease cannot advance, and if you take care of the tuberculosis surrounding the immediate area of the infection, that is going to clear up. I take it, no matter whether we are using a toxin or anti-toxin, our medication occupies a third place. If we expect to see a tuberculous patient get well we have first to carry out a strict hygienic supervision of the patient.

In the second place, I believe his chances are better if he is situated in a favorable climate, especially at some point away from where he has been infected. Third, I believe medication comes in, and I believe it will rank third, no matter whether it is a toxin or anti-toxin. I have used both, and I think my results have been better since I have been using the serum method than where I used the direct application. I know some are claiming percentages which seem almost miraculous, and if these results can be demonstrated it is going to be one of the greatest things that has come out. My results in point of percentage are not as great as some of the reports where toxin methods have been employed. It is still an open question, and the investigators are working along both lines. It is yet too early to say which will be the method, but I believe the time is coming when tuberculosis is not to be the dread disease it has been in the past.

Dr. C. V. Reynolds :—I confess I have not had any experience with toxin or anti-toxin, but from a theoretical standpoint and from reading I will make a few remarks. I enjoyed the doctor's paper, and think he treated the subject fairly for and against serum therapy. I think Koch in his preparation of toxin and his treatise on it is fair. He claims that his T. R. contains some of the tubercular bacilli itself, and that produces the abcess of mixed infection, and then he takes that out and produces one which has the tubercle bacillus, and immunize the guinea pig, but it seems to me he does not claim such success for advanced cases of tuberculosis in treating human beings from this method. Also, right along there, two writers in the Twentieth Century Practice of Medicine, claim that there are other bacteria present which produce elevation of temperature, and in my opinion, if kept up long enough, produce general sepsis, and the patient dies. It seems that so far in this toxin treatment the profession has only reached the point where they can immunize a patient who has a predisposition to tuberculosis, and the relative value, to my mind, is just the same in tuberculosis, or at the very beginning, where there is no mixed infection, and then immunize that patient against tuberculosis, otherwise the serum would have no value at all. I have never heard the length of time demonstrated, but it seems to me that is the fighting ground, not after the patient has tuberculosis or mixed infection, but before he has tuberculosis, or at the beginning of the disease.

Dr. J. H. Williams :—I am extremely obliged to you for the kindly way in which you have taken the few remarks I have made. As I said, they have been hastily

gathered together and have not been given sufficient thought, but they open up a field for discussion, and I have already made my apologies to the Society for the exceedingly loose way in which I have gathered together these few thoughts.

In regard to some one speaking of whether or not serum therapists rely upon serum therapy alone, I shall say most emphatically and unequivocally, no. There is no one to-day an advocate of serum therapy who believes he is going to cure his patient by the use of serum therapy alone, but he believes he can produce in his patient that condition of immunity against the tubercular bacilli which will enable him, by the climatic influence, by the environment of the patient, by rigid restriction as to diet, the hours of his lying down and getting up, the mode of taking food and the manner of food he shall take, those are the important things, and then, as Dr. Ambler very correctly says, medication occupies the third and last place. So far as anti-toxins are concerned, we have learned that they accomplish very little. After we have the septic condition, a breaking down of the tissue with mixed infection, the pouring out of large amount of pus into the bronchial tubes with the consequent absorption taking place, with the sepsis that follows, then the mode of treatment that has been instituted and so earnestly championed by our worthy President, that of introducing anti-septics into the bronchial tubes, with their absorption by the lungs, occupies a very high place indeed, and I think has accomplished, as his records show, a very large amount of good. We all know that anything and everything that builds up the human economy, that adds to its resistive powers, that enables it to combat with disease, whether by food, air, medicine, or what not, any and all are part of the tubercular treatment. My paper is not a paper upon the treatment of, or the origin of tuberculosis, its pathology or etiology, but simply as to the effect of toxin or anti-toxin in the human economy. Dr. Ambler, in his remarks as to the difference in the treatment of diptheria and tuberculosis, did not make himself quite clear to my mind. He said that the disease of diptheria is strictly a disease of the mucous membrane. I do not agree with the doctor in that. The mucous membranes are the place of lodgment of the pathogenic germ. We know that the whole economy becomes permeated with toxin resulting from the presence of these germs. It is not a disease of the mucous membrane only, nor in applying our anti-toxin do we apply it to the mucus membranes only, but we apply it to the circulation, that we may attack the toxin in a stronghold. Our anti-toxin comes to the aid of the faltering, laboring system, and helps it to fight the battle, helps it to overcome the toxins which are destroying the life, by its action in the cell system of the body, by its peculiar and its absolutely unknown power of combatting the toxins in the body. We know it simply clinically, otherwise we know absolutely nothing of the action of this anti-toxin. We simply know that we have followed lines of reasoning, and by analogy have been lead up to the conclusion that the introduction of anti-toxin will destroy or counteract the effect of toxin upon the tissues of the body.

I am glad that Dr. Reynolds has appreciated the point that I make in regard to the immunizing of coming generations. I believe that the day will come—call me a dreamer or enthusiast, I do not care—but I believe the day will come when we will immunize the babe in the cradle against tuberculosis, and I believe we can do it. If we can immunize a guinea pig we can immunize the human subject, and if we have a child who comes to us with a long history of tuberculosis, with that hereditary tendency, I believe we can immunize that soil, render it absolutely sterile, so that for a certain number of years this child cannot acquire tuberculosis, even if you introduce the most virulent culture into it.

Strangulated Inguinal Hernia.*

By Frank T. Meriwether, M. D., Asheville, N.C.

A strangulated hernia is one in which there is not only obstruction to the passage of fecal matter, but also an interference with the circulation of the blood to the part strangulated, causing congestion, effusion, and if existing long enough, gangrene. In fact, strangulation and gangrene may be present when the fecal contents of the bowel pass through the part strangulated.

As a rule, strangulation occurs in cases in which there is a history of previous hernia, reducible or irreducible, though rarely it is synchronous with the first appearance of the hernial protrusion. The last case I saw was probably one of this type, though the patient stated that he had had a small hernia six years before, but that it had disappeared shortly after its occurrence.

There have been several theories advanced explaining the mechanism of the strangulation. The old theory was that of harden-

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ed feces occupying the portion of the gut included in the tumor, causing pressure and gangrene, and preventing the return of the intestine. The fact that the small intestine is the part usually involved furnishes evidence that that can not be so, for it only contains liquid feces.

The probability is that the gut after being forced through the hernial opening, which is more or less elastic, is compressed, and venous congestion thereby results. If not shortly relieved, engorgement and effusion occurs, and the irritation causes increased peristalsis and often the forcing of more gut into the sac, and in some cases filling the intestine with feces and gas, thus further increasing the congestion until finally there occurs an absolute stoppage of the venous circulation, with gangrene following. In some cases the gut does not contain anything, the gangrene resulting from simple venous obstruction and thrombosis.

It is not likely that the circulation is cut off at once, but it is a gradual process, the veins on the surface of the intestine suffering first.

Gangrene has been observed within four hours after strangulation, and cases have been reported in which two weeks have elapsed without its occurrence, though all of these cases resulted fatally. I had a case of Littre's hernia, irreducible and strangulated for over three weeks before operation and in which the only lesions discovered were a loss of the peritoneal coat of the intestine, with consequent bacterial leakage, and in which peritonitis occurred with fatal results.

When gangrene does occur it is found involving the entire loop in probably 20 per cent. of the cases, the convexity in about 35 per cent., at the neck of the sac in 15 per cent,. and the neck of the sac and the convexity in about 30 per cent.

In my experience it has usually been the ring which was the seat of the stricture, usually in inguinal hernia the external ring, though McGrady says "it is probable that the seat of the stricture is more often at the neck of the sac in inguinal hernia."

Untreated, the patient may live for seven days, but recovery is out of the question without some interference. I have seen some cases in which strangulation was said to have occurred, and in which the bowel reduced itself after the fright was over.

Death occurs from peritonitis, shock or absorption from the intestinal contents.

In 111 cases of inguinal hernia operated upon 19 died. The mortality before asepsis was used was much greater than now, and the mortality has decreased steadily since the pre-antiseptic days. At the clinic at Zurich, when carbolic acid was used, the mortality was 38.15 per cent.; from 1884 to 1892, when bichloride was used, it was 21.1 per cent., while in aseptic cases it is 16.2 per cent.

Of 129 cases operated upon aseptically, the mortality of those operated upon within one day was 12.5 per cent.; of those operated upon in two days it was 26 per cent.; of those on the third day it was 36 per cent., while those in which the operation was delayed four days it was 44 per cent.

Strangulation in infancy is very rare.

When a history of previous hernia can be obtained, diagnosis is not very difficult, as a rule, but when the hernia has only recently occurred it is somewhat difficult. The presence of marked constitutional symptoms, with prostration, obstruction of the bowels, together with loss of impulse, vomiting and increased tension makes up the diagnosis. The temperature is at first elevated, but will usually become subnormal after gangrene has commenced. With the subsidence of the temperature the pulse increases and the pain and tenderness also decreases. This lessening of the pain and tenderness is very misleading, for like the reduction of the temperature it is due to the shock coincident with the gangrenous process, and is a very unfavorable symptom.

In Littre's hernia the constipation, while marked, is some times relieved, but vomiting persists, and depression becomes more marked, while the local symptoms remain the same. In a case I operated upon recently there was some difficulty in differentiating between a hydrocele and a strangulated hernia, The swelling was first seen in the scrotum, the inguinal canal was not occupied by a tumor and his pulse remained good for 48 hours. Though his history was that of a sudden appearance of a tumor the diagnosis was somewhat difficult. His physician aspirated one-half a pint of clear fluid which he says looked like the fluid of hydrocele, and not until the third day did he show marked symptoms of shock and prostration, though the gut was gangrenous at the time of operation. I think the delay in shock was due to the fact that it was the large intestine that was involved in the tumor, and my experience has been when that is the case shock and constitutional symptoms are not shown as soon as when it is the small intestine.

Treatment.—In some cases of slight strangulation reduction may be accomplished by local application of ice with or without taxis. This should not be persisted in for very long. Ice packs aid in the reduc tion by its local anesthetic effect. As an

aid to taxis, elevation of the pelvis with flexion of the knee and thigh with adduction of the thigh should be made use of. If reduction is obstructed by the presence of gas in the bowel, or effusion in the sac, aspiration may be done, but only in cases which have refused operation and when the strangulation is recent. Taxis should not be persisted in for more than four or five minutes, and after repetition once or twice an anesthetic should be given. Before giving the anesthetic, preparation should be made for an operation and the consent of the patient gotten for an operation if the taxis is unsuccessful.

Taxis is not without its dangers. Frikhoffer states that 7.8 per cent. of inguinal herniæ reduced by taxis were fatal. The dangers from its use are: bruising the intestines, possibly causing rupture of the bowel, and consequent peritonitis.

If the hernia has been irreducible previously, or if inflammatory symptoms are present, or if strangulation has existed for from twenty to twenty-four hours it is not advisable to try taxis, except possibly under anesthesia and when prepared for an operation.

When an operation is done, after strangulation has been relieved, it is often difficult to know what to do with the gut when gangrenous. If in doubt as to the condition of the bowel it is good policy to allow the wound to remain open for several hours. properly covered and protected, until circulation either returns or is shown to be absent. Often a gut which is apparently gangrenous will after a few hours show quite a healthy appearance. If, however, the gut is gangrenous, the choice remains between resection and the formation of an artificial anus. If the patient is weak, or if strangulation has existed for some time, I think the more rapid operation of the formation of an artificial anus is preferable, though statistics show that of 173 gangrenous cases treated, 94 by artificial anus, 76 per cent. died, while 67 cases of resection done, only 47 per cent. died. The probability is that the anus cases were in worse shape than the others, and that the operations were done by less experienced operators. The choice of the operation of resection must be left to the individual operator, his familiarity with the various techniques, and the character of the individual cases.

The addition of a few drops of peroxide of hydrogen to urine containing pus, will cause bubbles to rise and froth to appear on the surface, similar to its action on pus in other localities.

The Use of the Opthalmoscope in Internal Medicine.*

By Lee Wallace Dean, M. S. M. D., Prof. Physiology University of Iowa.

It is not the object of this paper to discuss the new ideas regarding peculiar changes in the fundi of the eyes, but rather, to review and bring together the well known facts regarding the relation between these changes and general diseases. Neither is it the idea to deal with changes which are interesting because they are sometimes found in connection with certain diseases, but rather to deal with these changes which are really an aid to the general practioner in making his diagnosis. At the same time I will try and bring out some of the more recent ways of diagnosing some of these changes, and also discuss not only the bearing which they have in making a diagnosis, but also the prognosis in disease. Every physician ought, I believe, to use the opthalmoscope, even if he be not expert enough to diagnose questionable cases. The very fact that he has made an opthalmoscopic examination, interests him more in his case, and anything which increases his interest is to the advantage of his patient and the profession.

The fundus of the eye is especially adapted to give to the practitioner some idea of the conditions of the two main systems of the body, the circulatory and the nervous. We have here spread out as under a magnifying glass, a nerve, and one closely connected to the brain. There is no opaque or even translucent material separating this delicate structure from the external world. It is so plain that the slightest inflammatory change in its substance can be detected. Again, we have here the end of an artery and the beginning of a vein. Blood vessels 1-700 in., in diameter can be observed quite plainly, or rather their contents can be seen, as we do not see the wall of the vessel except under certain pathological conditions. Here we can sometimes observe changes in the walls of the vessels, which are indicative of changes in the vessel walls in other parts of the body, and occasionally we can even detect changes in the venous or arterial circulation. Quite frequently where there is apparently no disturbance of the temporal or radial artery, we find in the fundus of the eye, vessels with well marked sclerotic changes.

The changes which are most important and which we shall discuss, are atrophy of

*Read Before the Johnson County Medical Society.

optic nerve, choked disc and enuritis, retinitis albuminurica, retinitis diabetica, emboli in arteria centralis and its branches, and hemorrages from retinal veins and arteries.

Atrophy.—Atrophy of the optic nerves is a condition very easily to be diagnosed in well marked cases. At first sight it might seem that it was always very simple. In truth, however, when beginning it is one of the hardest things to diagnosticate. The color of the optic nerve may vary from a pink to a pale white, and the nerve remain perfectly normal. We have senile changes in the disc, when the disc is very white and vision is normal; again in the short-sighted we find the disc much whiter than in many cases where there is a decided atrophy. In diagnosing questionable cases the first thing to be done is to correct errors of refraction. If by correcting these vision is found to be normal, there is, of course, but little or no atrophy of the nerve. If there is whitening of the disc with diminution of vision, the only thing which might be confused with atrophy is glaucoma. Fuchs says a diagnosis between these two can be made by examining the color fields; that in atropy the red and the green fields shrink faster than the others, while in glaucoma the fields shrink equally fast. Dr. Schweinitz, however, in a recent paper delivered before the American Medical Association, said:

"We can't tell glaucoma from atrophy by excessive contraction of fields for red and green, because the same frequently holds good for glaucoma. In glaucoma, however, if the field is carefully examined, we will find scotomata which is a much surer method of differentiating the two. We have affecting the optic nerve at least four different kinds of atrophy. The simple atrophy, the inflammatory atrophy, the retinitic atrophy and atrophy, the result of a retrobulbar nueritis.

Simple atrophy of the optic nerve is characterized by a whitening of the disc together with none or a very little diminution in size of the retinal vessels. The edge of the disc is distinct. It is simply a wasting of the optic nerve without any inflammation.

It is indicative first of tabes. It may make its appearance early in the disease, and is always accompanied by the Argyl Robertson pupil. The Argyl Robertson pupil always appears before the atrophy. Whenever it is found, it makes no difference whether there is any other disturbance of the nervous system or not, one can always promise the patient that he or she will some day suffer from tabes or progressive paralysis.

Simple atrophy may also accompany disseminated sclerosis (here usually accompanied by nystagmus), progressive paralysis of the insane, and lateral sclerosis of the cord. Besides these we have certain hereditary atrophies. These are probably preceded by some inflammation. Simple atrophy can also be caused by anything pressing directly upon the optic nerves, either within or without the cranium. A tumor at the back of the orbit or at the base of the brain, pressing on the nerves or chronic meningitis may cause it.

The inflammatory or enuritic atrophy is much more common than the simple. Here, in addition to the discoloration of the disc, we find the vessels shrunken, especially the arteries which may be mere threads, sometimes perivasculitis, the edge of the disc not distinct, and changes in the mascular region, all being simply the result of an inflammation of the nerve. This condition is simply indicative of any trouble which may produce an optic nueritis, the causes of which will be dealt with later.

Retinitic atrophy is an ascending atrophy due to a retinitis or choroiditis.

Atrophy, the result of retro bulbar enuritis, is characterized by a whitening of the temporal portion of the disc, due to the atrophy of the so-called papillary muscular bundle of nerve fibers, and a central scotoma for red and green. It occurs in lead, alcoholic or nicotine poisoning and rarely in other conditions.

Optic Enuritis and Chocked Disc.—In dealing with these conditions, I will not make any attempt to differentiate between the two. When I speak of optic enuritis or papillitis, I mean either a descending enuritis or choked disc. Under some circumstances it is possible to differentiate between the two, but usually not. If we have a well marked swelling of the disc, with no diminution of vision, it is safe to say it is a choked disc. Some authorities go so far as to say that when the elevation of the disc is more than 3 D, then it is choked disc in one eye, and enuritis in the other. Most authorities agree, however, in saying that a differential diagnosis between choked disc and a descending enuritis is impossible.

The diagnosis of this condition is far more easily made than that of atrophy of the optic nerve. The papilla appears white, gray or red. It is often covered with white exudates or hæmorrages. The boundary of the disc is not distinct. It appears to be spread out over the neighboring portions of the retina. The disc is elevated. The arteries are smaller than usual, the veins dilated and tortuous, the result of compression. In some cases, especially if we have

an amblyopic eye with a high degree of astigmatism, a mistake might be made. If, however, we remember that the optic disc in astigmatism appears more distinct when examined by the direct than by the indirect method while with a beginning enuritis, just the opposite is the case, no trouble will be had. The vision is usually poor, but it may be normal.

Papillitis may be Caused:—A, by intra cranial diseases. These may produce papillitis either by a direct continuation of the inflammation from the brain along the opticus to the eye, or by increasing intracranial pressure and producing the choked disc. Tumors of the brain are the most common of the intra-cranial disturbances which produce papillitis. They may produce papillitis in either way. Dr. Krauss has recently made extended observations concerning the production of papillitis by brain tumors, and I think his deductions are the best which we have. He says:

1. Optic enuritis is present in about 90 per cent. of all cases of brain tumor.

2. It is more often present in cerebral than in cerebellor tumors. Here he differs from Gowers, who says papillitis almost invariably accompanies tumors of the cerebellum.

3. The location of the tumor exerts little influence over the appearance of the papillitis.

4. The size and nature of the tumor exert but little influence over the production of the papillitis.

5. Tumors of slow growth are less inclined to be accompanied with optic enuritis than those of rapid growth.

6. It is probable that unilateral choked disc is indicative of disease of the hemisphere corresponding to the eye involved.

Other intra-cranial troubles producing papillitis are meningitis, abcess of the brain, thrombosis of the sinus, anuerysms, apoplexy, cysts, dissiminated sclerosis, hydrocephalus.

B. Papillitis may also be caused by acute infectious diseases.

C. Poisons as lead, alcohol, tobacco.

D. Orbital tumors.

E. Syphilis, albuminuria, diabetes and mentrual anomalies.

F. Lastly, we have a hereditary form of enuritis. It is very peculiar in that it affects only the males, and these usually go blind about the age of twenty. I remember one family that came under my observation, where five brothers at the age of twenty-five, were blind. In this family there was no history of syphilis.

Albuminuric Retinitis:—This is one of the conditions most interesting to the practitioner. Albuminuria may produce a series of conditions in the eye, varying from a simple enuritis or retinitis to well marked neuro-retinitis with exudates and hœmorrhages. In short, albuminuria produces such a series of changes in the eye, that whenever a disturbance of the nerve or retina is found, the urine should be examined. The typical albuminuria retinitis is characterized by a swollen, red, slightly elevated papilla, with indistinct limits; around it are a series of flame-shaped or striated hemorrhages. In the macula is a star or halo like arrangement of exudates or degenerated areas. While this is the type of albuminuria retinitis, it is far from safe to make a diagnosis of albuminuric retinitis when this condition is found. Almost the same picture is found sometimes in neuro-retinitis the result of meningitis. Again we have the saturnine retinitis, the result of lead poisoning which has a similar series of exudates in the macula. And then there is a very interesting form of retinitis, the retinitis circinata, described first by Fuchs and which is not very rare. This latter presents almost an exact picture of a pure albuminuric retinitis with no enuritis. It occurs in elderly people and may or may not be accompanied by loss of vision. It is very chronic; cases have been known to exist for twenty years with but little diminution of vision. I remember one case where the macula was covered with silvery areas, and the vision was normal. Just what the nature of the spots is, is not yet known, as no case so far as I know, has been examined microscopically. Fuchs considers it a senile change. Because of its close resemblance to albuminuric retinits, it is well to remember never to make the diagnosis without first examining the urine.

Albuminuric retinitis, while it may appear early in Brights disease, never occurs until albumen is found in the urine. It may be present, however, when, because of treatment or for some other reason, there is but a trace of albumin in the urine. It is usually double-sided, but many cases of one sided eye affections are recorded. I have had under observation myself for the last three months, a case presenting in one eye a typical picture of albuminuric retinitis with no affection of the other eye. This patient has constant albuminuria. This case is being carefully studied and a report of it will be published in the October issue of the Ophthalmic Record.

Albuminuric retinitis, although it is frequently that which calls the physician's attention to the condition of the patient, is not of so much importance in the diagnosis of Bright's disease as in the prognosis. In

speaking of the aid which it might give in making a prognosis in Bright's disease, we must remember that we are not speaking of the albuminuric retinitis of pregnancy.

The universal prognosis is bad. Schmidt Rumpler says, "Death occurs in from few months to two years." Norris and Oliver say, "Death may be expected in a few months, save in acute cases.

Belt watched one hundred cases, of these 10 per cent. died in three month, 42 per cent. in six months, 21 per cent. in twelve months, 5 per cent. in 18 months, 6 per cent. in two years, and 6 per cent. lived more than two years.

Retinitis Diabetica.—In diabetes mellitus the retinal changes are not so frequent as cataract or especially amblyopia of the eye, without visible disturbances in the retina itself. Not infrequently do we find patients with diabetes, with a vision of only 2-3 and no apparent change in the retina, lens or vitreous. The amblyopia in diabetes is not of short duration as in albuminuria, but is more or less chronic. It may last for weeks and even months, constantly oscillating, getting better on one day and worse on another. The patient tries to account for the changes by the weather, and then by the amount of sugar in his urine, but neither prove to be an indication as to the condition of his vision. As changes in the back of the eye in diabetes we have retinitis similar to albuminuric retinitis, with the white glistening areas in the macular region; thombosis of the central vein; and lastly a hæmorrhagic retinitis with a series of small haemorrhages and exudates into the vitreous.

Disturbances in the retina in diabetes make the prognosis very grave as they come on in the latter stages of the disease. The cataract and amblyopia do not give this serious view.

Embolism :—The central artery of the retina or one of its branches is not unfrequently occluded by an embolus, and the occurence is of much medical interest. No where else can the phenomna of vascula occlusion be observed during life. This accident is commonly the 'consequence of heart disease, and is frequently the first thing which draws attention to the cordiac affection. Several cases of this kind have come under my observation. In such cases apoplectiform attacks were expected, and in one case an attack came on soon after the accident in the eye. If an embolus lodges in the retinal artery, it is well to expect that soon one will lodge in some of the numerous small arteries of the brain. The obstruction may be in the trunk or one of the branches. In each case there is first a sudden loss of sight, then a gradual return of vision to those portions of the retina not supplied by the vessel occluded. Rarely when there is a complete occusion of the artery centralis retinæ, the patient may still see. Here we will find that there is a so-called ciliary retinal artery which has penetrated the sclerotic and supplies the retina. An optholmoscopic examination shows the artery occluded and its branches to be much shrunken. The veins are also somewhat smaller. The retina becomes cloudy and œdematous. If the region of the macula is affected, we get the so-called cherry red macula, a red spot right in the center of fovea centralis produced by the redness of the choroidal vessels, showing through at the spot where the retina is thinnest, and in consequence made less opaque by the œdema. If the obstruction remains, the arteries dwindle to mere white threads, the disc atrophies, and there are changes in the retina due to its poor nutrition. Sometimes, however, the circulation becomes re-established and then vision is regained to a certain extent.

Retinal Haemorrhages :—Rupture of the retinal vessels and consequent extravasation of blood are very common in many morbid states, and are frequently of important general significance. They may occur as part of inflammation of the retina but are more frequently dependent directly on general conditions or on retinal disease, consequent on general conditions. They vary much in size, position and aspect. They may be so small as to be visible only as a spot or line on direct examination, or they may be three or four times the diameter of the disc. There may be but one, or innumerable haemorrhages may exist over the whole fundus. Their shape depends much upon their position. They are most frequently found in the layer of nerve fibers. The fibers are separated and the blood lies between them, extending in direction of lease resistance. Hence, the smaller hæmorrhages are linear or flame shaped, and radiate from the disc. If the hæmorrhage be in the muclear layer or between the retina and the vitreous, it is irregular. The symptoms of haemorrhages are simply loss of vision in the part of the retina covered by the blood. Small ones may give rise to no symptoms but a careful examination of the field of vision reveal scotomota.

Haemorrhages in the retina may occur in all inflammatories of the retina or with increased local blood pressure. It occurs in general increased arterial tension, and when there is a degenerated condition of the vessel walls generally. The latter is common in scurvy, pernicious anæmia and

kidney diseases. Sometimes it is a result of senile vascular degeneration. Blows upon the eye and skull are frequent causes. The prognosis depends upon the position of the haemorrhage and to the extent to which its causes are under control.

Shall we Operate on Every Case of Appendicitis ?*

By Virginius Harrison, A. M., M. D., Lecturer on the Practice of Surgery, University College of Medicine, &c., Richmond, Va.

We find in nearly every journal something on the subject of appendicitis, and this is because there is no subject of more importance to us as doctors. It is the so-called "mild cases" of appendicitis about which our profession differ more often in regard to the treatment. This will continue until our methods of diagnosis are perfected in regard to the severity of the conditions inside of the abdomen, enabling us to lay down exact rules for the varying cases.

Those who favor the medical or expectant plan of treatment use various arguments for substantiating their belief, the chief of which are, the patients may recover if not operated on. If the patient gets worse rather than better within a day or two then operate.

While some advise us to wait until the attack has been recovered from and then operate in the interim. Taken as a rule these statements may have and did deserve some consideration a few years ago, when we did not have the experience of to-day, which has so clearly demonstrated the advantage attained by an early operation.

Many have been the cases that were considered mild, and were treated expectantly, apparently with success, for the pain had subsided, the temperature and pulse were either normal or very nearly so, the rigid abdominal muscles had relaxed, when suddenly symptoms of serious import arose indicating suppurative peritonitis, or rupture of a local abscess. Some cases are so mild apparently, that after a few days treatment we may doubt our diagnosis and render another, and not until a post mortem has revealed the true condition of affairs will we appreciate how insidious the symptoms of appendicits can behave. A case of this kind has, so I am told, occurred in surgical Richmond within the past two months. Again I have seen cases operated on in which there was some doubt as to whether there was any serious lesion of the appendix, yet the operation taught us we had not operated too early. I recall a case in point. A young man had recurrent attacks so frequently I advised the removal of the appendix. These attacks never kept him in bed but one day. He never had a temperature over 100 deg. F., nor was his pulse over 80. There was always some little rigidity, though very slight. Before the last attack he skated until 11 P. M. Was taken at 4 A. M. with the pain, which was relieved by the action of a dose of epsom salts. This surely could be classed as a so-called mild case. I operated at 1 o'clock and was much surprised to find a localized collection of pus, ready to rapture and be followed by all the dire consequences of suppurative peritonitis. I have seen all these conditions I have spoken of and many more, illustrated over and over on the operating table. Nearly every case of appendicitis I see operated on impresses the fact upon me that the early operation gives the patient the best chance of recovery.

I honestly believe we will lose nothing by operating on every case as soon as we are sure we have diagnosed our case correctly, provided there are not other diseased conditions that must engage our consideration. To use the words of Dr. Deaver: "Until the good Lord makes the belly wall transparent, it will be impossible to do other than guess as to the progress the appendical inflammation is making."

A few surgeons, and among them high authorities, adhere to the "middle of the road" theory, advising some to be operated on and advising others not to be operated on, yet there are many bright illuminaries in the surgical world, such as Murphy. Deaver, Treves, and others, who are free to admit that they cannot tell what course any case of appendicitis will take, and advise the removal of the appendix while the mortality should not be over 2 per cent. I envy the man who has the courage to act upon his honest convictions, provided these convictions have been made after a studious investigation of the subject.

When does the time limit of a mild case end, or, in other words, how long should we wait before operating, with mild symptoms? The time ends, in my opinion, when we have diagnosed the case as appendicitis. The two cases already mentioned above teach us this. I could give a good many cases that I have seen to prove the correctness of my opinion, but instead will quote the statistics of Dr. Will J. Means, of Columbus, as given at the June meeting of the American Medical Association. I quote

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these statistics to show how early in the attack is the damage done:

"In nine cases operated on in the first twenty-four hours after the attack the appendix was ruptured in five and coprolites were escaping through the openings. In the other four cases the appendix was inflamed, the mucosa shewed pathologic changes and the surrounding tissues more or less involved. In seventeen cases operated on within forty-eight hours the appendix was gangrenous in ten. In twenty-three cases operated on in seventy-two hours, twenty of these were gangrenous in some portion. In twenty-five cases operated on after the third day there were abscesses in twenty."

What do we learn from these statistics? Surely it is the lesson that the earliest we operate the less grave will be the conditions with which we will have to deal, therefore the lowest rate of mortality will be had in the early operations.

If the statistics given by Dr. Means were unique, we might stop and meditate as to the value, but when we find that his experience coincides with the experience of nearly all of those who operate daily, and who have an opportunity of verifying their statements over and over again, we must accept their statements as true, and act accordingly, until some light hitherto withheld has illuminated the abdomen, and directed us correctly as to which cases will go on to complete resolution and which will hasten on from bad to worse with a fatal termination.

While we are still in the dark as to the ultimate outcome of any case, does it not seem more reasonable and better to open a few bellies in one hundred cases that did not require it and have practically all of the cases get well than to wait until the appendix has become perforated or gangrenous, involving all the surrounding tissues? This latter condition will entail a far more serious operation and be attended with a corresponding higher rate of mortality.

Doubtless patients have had attacks of appendicitis, recovered, and never had a return of the attack. We all know this is an exception and not a rule. If these cases were labeled so we could recognize them, there would be no diversity of opinion as to the treatment. We know, as a rule, one attack is followed sooner or later by another. We do not know always that the attack supposed to have been the primary one is in reality the primary one at all, the patient may have had several and have been treated for other abdominal trouble. The symptoms are no criterion in determining the amount of damage done within the abdominal walls. I have seen a flat abdomen, a normal temperature and pulse, with pus in the abdomen.

I wish briefly to speak of two other classes of appendicitis, viz.: the acute fulminating, and those cases after the advent of suppurative peritonitis.

No one will, I suppose, take issue with me when I say all cases of the acute fulminating variety should be operated on immediately.

Appendicitis has become such a common disease that this class is usually diagnosed by the family by the time we arrive. They also, in the majority of cases, have learned the necessity of an operation. The old doctrine, "too late for an early operation and too early for the late operation" has no place here. As soon as the patient can be placed in suitable surroundings to be operated on the more chance will he have of recovery. Even slight delay is fraught with great danger. An hour may be sufficient for this appendical inflammation to do irremedial damage and place the patient beyond the pale of successful surgery.

This brings me to the consideration of a class of cases that deserve a more careful investigation as to the needs of an operation. I refer to those cases seen after suppurative peritonitis has set in. What shall we do with them? If we do not open the abdomen, irrigate and drain the peritoneal cavity we know that the patient is inevitably doomed. If we operate, the large majority of the patients will die and surgery will suffer as a consequence. These are the cases that the surgeon, who is working for good statistics, will avoid if possible. Is this right? Some of these cases have been saved. This being true should it not be a stimulus for us to lend them our aid? They are entitled to even a small chance of saving their life if they desire it. The statistics of the surgeon or the effect upon future surgery amounts to nothing to them in comparison to their own life.

In conclusion, I will summarize by saying: in mild cases, when there are no complications of great moment, I advise "an ounce of prevention rather than a pound of cure," and that every case be operated on as soon as diagnosis is complete. In the fulminating variety we will all agree, I have no doubt, as to the advantage to be gained by the early operation.

In those cases seen late and suppurative peritonitis is present, without collapse, I think the patient is entitled to the very small chance of an operation, after he has been told the true condition of affairs and he desires the operation.

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The Preventability of Typhoid Fever.†

By R. Percy Smith, M. D., Sunnybrook, Md., Lecturer on Hygiene, Baltimore Medical College, Baltimore, Md.

In presenting such a subject for discussion to-day it becomes necessary for me to make some explanation as to the depth and extent to which I will be able to enter into this important matter in the limited time at my disposal. Every one present must realize the immense field possible for one to cover should I undertake to go into minute details of the proper sanitary arrangements of residences, school houses, or business houses; should I undertake to explain the source of water supply, mode of conveyance and disposal to the users; also, the proper mode of collection, removal and disposal of sewage and other refuse matters. Such a paper would be far-reaching and probably tiresome to many present. I am, therefore, compelled to consider the preventability of typhoid fever in a general way, and leave the more minute details to be discussed on some future occasion. It, however, becomes requisite for me in discussing the prevention of typhoid fever to first consider its *cause*, for when that is removed the prevention is easy.

Typhoid or enteric fever, excepting its possible origin from a cow disease, is a specific disease dependant for its propagation upon a specific virus. It is not always possible to establish the dependence of an outbreak upon a pre-existing case, but it is not necessary for this reason to assume that the disease can originate independently from decomposition of organic filth apart from the infection of a previous case. Seeing that the contagion may undoubtedly have a long period of latency with diminution or loss of virulence, which can be aroused into action under special but unknown combination of circumstances. Besides this, typhoid fever is often a mild disease and often unrecognized by the patient himself, who goes about his ordinary avocations unaware that he is spreading contagion broadcast. The infection of this disease is contained in the stools, and possibly in the urine during the whole period of illness, which is probably four to eight weeks or may even be longer. The virus, which is probably the bacillus isolated by Eberth, Gaffky, Klebs, and other observers, is transmitted from the sick to the healthy chiefly by means of drinking water or milk, but possibly may occasionally be through the air.

In enteric fever, as in cholera, it appear probable that at the moment of leaving the body the specific contagion is not possessed of any high degree of virulence, and must require a proper temperature and suitable conditions to later become the active virus for infection, The small quantities of oxygen that are swallowed with food are rapidly absorbed by the walls of the stomach, or converted into carbonic acid by the organism found there. So that in the upper straits of the small intestines, only traces of oxygen are found. The experiments carried out by Hueppe and Wood have shown that under precisely these conditions, cholera and typhoid fever can produce their poisons in great quantities. Should the organism live without oxygen in the intestines, they leave it in a peculiarly sensitive condition, and the individual with a great susceptibility to contract the disease. Should, however, the freshly excreted virus be allowed to grow in contact with the air as on soiled linen, in foul water closets, soil pipes or drains, the virus acquires a much greater power of resistance, and with it a great increase in infectiveness, no longer capable of being destroyed by the gastric acids. As the mouth is usually the ordinary channel by which infection occurs, if the virus has little resistive power it can readily be seen how the destruction may occur in the stomach by the natural acids found there. This fact gives a reasonable explanation of the rare occurrence of this disease spreading to nurses and attendants in hospital wards where typhoid is received, provided the wards are supplied with proper sanitary fittings, and the nursing properly and efficiently regulated.

Probably many persons who are exposed to typhoid fever escape owing to the virus being destroyed on swallowing by the acid of the gastric juice. Those who are out of health, or those especially who are suffering from diarrhea, seem to offer less resistance to the invasion of the contagion. Typhoid fever is not a disease of universal occurrence as many persons seem insusceptible to the infection. A partial explanation, however, may be made of this by the fact that it may have been contracted during childhood when mild or unrecognized, and, as a rule, one attack confers immunity for the remainder of life.

During the past thirty years the mortality from typhoid has been wonderfully reduced. In England we find during the period from 1870 to 1880 the mortality was at the rate of 0.32 per 1,000 persons living at all ages. The average death rate for the

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last ten years, 1890 to 1899, was only 0.1 per 1,000 persons. This result may be attributed to the improvements in water supply, sewerage and domestic sanitary arrangements throughout the country generally that have so marked a feature in the social progress of the latter half of this century.

Enteric fever is most prevalent, and causes the largest number of deaths, in the autumn. In our large towns a hot and dry summer tend to aggravate the intensity of the autumnal rise, and this fact, together with its special prevalence of the season, appear to point to a high temperature being necessary for the proper development of the special poison in stagnant deposits or polluted subsoil. It must be remembered that the highest annual temperature in the soil is not attained until late in the summer or early in autumn, as the earth a few feet from the earth's surface heats much less rapidly than the air. Seeing then that the chief source of infection is through drinking water, it becomes highly important that the water supply of a community should, as far as possible, be free from all foreign and polluting ingredients. The origin of the supply should be carefully guarded, and the district through which it passes prevented from infecting the same. Failing in this, the various processes of purification aiming at the eliminatien of the foreign ingredients becomes necessary. When the supply is derived from springs or shallow wells, the infection often occurs from a nearby cesspool, or from surface water being allowed to find its way into the stream.

Drainage from barn-yards, pig-pens, slaughter-houses, factories, sewerage from houses of all description, are frequently found to occur along the banks of a stream that is the chief source of supply to some town below. This of itself probably does not cause typhoid, as it becomes necessary for the virus to be present and actually to exist in the water to produce the disease. It does, however, increase the susceptibility to the infection and prepares a suitable lodgment in the intestines for the inoculation of the bacillus. What should be aimed at is to procure at its source a water sufficiently good to require no artifical purification, but failing in this the water should be efficiently purified by artificial means before the distribution to the consumer. It is not wise to leave purification to individual effort.

The various means are too lengthy to consider in this paper, but the fundamental basis of them all is the addition of lime water. When filtration is the mode used for purification, it is done by the sterilising action of the sand filter beds which oxydises the organic matters in solution during its passage through the filters. Poorly constructed filter beds sometimes are a source of pollution rather than purification, as cases are recorded where infection occurred during filtration. For domestic purposes when needed in small quantities, probably the most thorough method of purification is by boiling. There can be little doubt that the specific poisons of typhoid, cholera, and other diseases propagated by means of impure water are thoroughly and effectually destroyed by even a few minute's boiling.

Cases of enteric fever are sometimes traceable to the milk supply, in which case the infection either occurs from washing the cans, or the intentional dilution of the milk with water polluted by typhoid dejecta. It may be possible that typhoid fever is a disease of cattle, communicable to man through the milk secretions. This, however, is not yet proven, but believed by many to actually exist. When a physician is called to a case of typhoid fever it becomes his immediate duty to inform himself, when practicable, of the condition of the house drainage and water supply. The origin of the disease should, if possible, be discovered and corrected. The dejecta should persistently and unfailingly be disinfected. Too much stress cannot be laid upon this point. Soiled bedding, linens, clothing, &c., should always be placed in a disinfecting solution before being taken from the sick room, and when taken thence, placed as soon as possible in boiling water. There can be little excuse for the disease to be continually adding new victims for months, or even weeks, to its list, if proper sanitation is carried out both in the sick room and around the entire premises as well. Look to the water supply for the cause, and use some mode of purification to all that is used by the remaining members of the family and the community. Find where the point of pollution occurs, and remove the cause. Educate your people in personal and general hygiene. Show to them the application of the proverbial ounce of prevention, and pound of cure, and your advice will be readily received and compensated. Stamp out the disease as soon as it presents itself in your community, tracing the disease to its source. Remembering that typhoid breeds *true*, and only produces its like, and when it occurs, the presence of the specific virus is established. Make the most obstinate and continuous fight against the disease before its appearance in your practice, and your mortality will then be lessened and your noble calling in life honored. Always bear in mind you are supposed to be a

teacher among men, and, as such, instruct your patrons in the prevention of typhoid fever. Do not be a mere distributor of pills, for as such you lower your noble profession from its lofty position to the meanest of trades!

Iritis.*

By R. S. Magee, M. D., Secretary of and Professor of Physiology in the Kansas Medical College, Topeka, Kansas.

The iris is the colored membrane of the eye which separates the lens and its capsule from the cornea. It floats in the aqueous humor and divides the aqueous chamber into two parts; the anterior portion which is the larger, and the posterior, the smaller. These two spaces communicate through the pupillary space, their fluid contents interchanging.

The iris is continually bathed in the aqueous fluid. It is the only muscular organ which, for all time, is wholly immersed in a liquid, The condition of the iris has much to do with this liquid. If the iris sheds some of its epithelial cells, these desquamated cells float off into the aqueous humor and mar its transparency. If it be waste products, the result is a murkiness; if it is a hemorrhage, from traumatism of the iris, the blood and water readily mix, producing a blurring of serious magnitude, and in some cases temporary blindness. The continuance of this impairment will be measured by the quantity of the hemorrhage that has occurred.

Blue and gray are the predominating colors in the irides of Northern countries. Brown comes next, and it is the most frequent in the tropical and semi-tropical countries. It is a denser pigment more nearly excluding the brilliant light found in the Southland. The various mixtures of these three prevailing colors give the great variety of intervening shades. Perfectly black irides are never found. With few exceptions the color of the irides of new born children is of a light grayish blue. The stromal pigment, which is the final fixed color of the iris, is not developed until about the third month.

The mother anxiously watches these changes, making many guesses as to what the pigment color will be. If the color of the irides of the parents differ, nature occasionally makes the attempt to please both, by making one iris of the child brown and the other gray or blue, chromatic asymmetry.

Such conditions should be most carefully inquired into in the examination of the eyes of a patient, where serious disease of the eyes is expected.

This chromatic asymmetry may indicate disease or liability to disease. The discoloration may be of a greenish or brownish tint while the other eye remains blue. This would indicate the presence, at some time or other, of an iritis or cyclitis.

Discoloration of the iris is an early symptom of iritis and should be looked for in every inflamed eye.

The pupil, the circular opening in the iris, is influenced by the condition in the iris. True, it is of many diameters in health. Smaller in old age, in blue eyes, and in hypermetropes. Larger in youth, in dark eyes and in myopes. But there is a physiological standard. The pupil in the eye at rest, should measure about 4.14 mm. or $\frac{1}{5}$ of an inch in diameter.

Of more importance, the pupil under equal illumination, should be round, of equal size and in the center of the iris, or speaking anatomically, a little to the nasal side.

The pupil, or more strictly speaking, the pupillary margin of the iris, should be freely mobile. If it is not it denotes attachment either anteriorly, to the cornea, or posteriorly to the lens. These are designated respectfully, anterior and posterior synechiæ. These are produced by gluing fast of one structure to the other, the result of a sticky exudate coming from the iris in its inflammatory state. When in this condition, as it lies against the lens, or if pushed forward, against the cornea, a union takes place that is almost inseparable, at times it is wholly so and remains permanently.

You can readily see how such a union will interfere with the movements of the iris, preventing complete dilation or contraction and to the extent of interfering with the light regulation of the eye. Not only that, but the attempts of the iris to perform its movements of dilation and contraction, and failing to do so, sets up a nagging and pulling, which is constant every time the individual changes from a dark to a light room or from light to dark. Continual traction is made on these adhesive points. The resistance offered stimulates a greater effort on the part of the muscular fibers of the iris, to be released. This increased stimulation sets up an irritation or excitation in the nerve fibers, and this in turn is carried back to the nerve centers. This constant irritation may finally produce a sympathetic irritation in the other eye.

To determine the mobility of the iris,

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place the patient before an open window, cover one eye and then request him to look in the distance with the exposed eye, then shade it for a moment, the pupil will dilate, if no abnormality is present. On the removal of the card or hand, and exposure of the eye to light again the pupil will contract to the same size as that which existed before the test was applied.

If, however, there be adhesions or swellings of the iris, no movements will take place, or possibly a slight sluggish movement. The movements in health are quick and regular, if otherwise it denotes a diseased condition.

There are two sets of muscles in the iris; (a) the contractors, sphincter pupillæ. (b) the dilators, dilator pupillæ.

The action of the sphincter muscle is entirely reflex. The parts necessary are: 1, the retina receiving the stimulus of light; 2, an afferent nerve, the optic, carries it to the center in the brain; 3, the center located near the aqueduct of Sylvius; 4, the efferent nerve, the motor oculi, which supplies the sphincter muscle.

The dilator fibers are under the control of the sympathetic, receiving its stimulus from a centre located in the medulla.

Iritis arises from two causes: 1. Local or traumatic. 2. Constitutional, diathetic.

In a certain sense, I am of the opinion that all diseases may be considered as of traumatic origin, considering the germ a trauma, and the injury it does a traumatism. This then would make but one division, namely, traumatism. 1. Direct, exterior. 2. Indirect, from within.

The local or traumatic causes of iritis are: Injuries of the cornea, which are allowed to remain a considerable length of time; 2, careless use of caustic agents; 3, penetrating wounds of the eyeball; 4, a swollen lens or disintegrated lens substance.

The constitutional causes of iritis are: 1. Syphilis in 75 per cent. of all cases. Rheumatism, malaria, gonorrhœa, tuberculosis, and diabetes, making up the remainder.

It is difficult to determine from the appearance of the iritis whether it be of syphilitic or rheumatic origin. Authors differ as to symptoms. If all cases of syphilitic iritis presented the characteristic nodules, it would be easy enough. But the appearance of the nodules is the exception and not the rule.

Some have tried to make the distinction on account of the greater tendency of the syphilitic iritis to recur, than the rheumatic iritis. But this is not borne out by investigation or experience.

The history of the patient, with other manifestations will most surely have to be taken into consideration in order to make the diagnosis.

The various kinds of iritis are briefly:

1. Plastic, the most common form. In this form the aqueous is not materially clouded and the cornea is not spotted. But it is a dangerous form from the fact that the pupil shows a rapid tendency to become fastened, soon refusing to dilate under atropine.

2. The second variety is the serous. The aqueous soon becomes murky and cloudy. Collections of pigment and cells collect on the posterior surface of the cornea forming punctate spots. Posterior synechiæ not so prominent here as in the plastic variety.

3. The third variety is that of the parenchymatous or suppurative iritis. The exudate from the iris falls down into the bottom of the aqueous chamber in a thick spongy mass and degenerates, forming pus (Hypopyon). This exudate is from the muscle (middle coat) of the iris.

Symptoms of Iritis.—The iris and ciliary body are inseparably connected, forming a continuous chain, and are supplied by the same blood vessels and nerves. Hence diseases affecting the one will almost invariably affect the other.

An inflammation of the ciliary body is termed a cyclitis; if both are affected an iridocyclitis.

Symptom 1. A general hyperæmia of the iris is manifested by a swollen iris, due to increased fullness of the vessels. Also by a discoloration, a blue or gray iris appears of a greenish tint, a brown to take on a muddy, indistinct hue.

2. Turbidity of the aqueous. This partly explains the change of color in the iris. This turbidity is due to a shedding of the iris epithelium, also to an exudate which, when mixed with clear aqueous gives it a murky appearance. Thus is best seen over the clear dark background of the pupil, now a gray instead of a pure deep black.

3. Thick swollen iris, spongy, due to an increased fullness of the blood vessels and to an exudate in the stroma of the iris.

4. Pupil contracted. Sometimes greatly contracted, differing as to the intensity of the process. It will be readily seen that the swollen iris will not move easily if at all, as is the case with any other muscle when swollen.

5. Pain, great dread of light. The attempt at movement in its rigid and swollen condition, whenever the eye is exposed to the light, causes great pain which is referred to the brow and temples, supra-orbital.

6. Adhesions posteriorly. The swollen vessels, stupid movements of the iris are all favorable to the pouring out of an exudate

which glues and sticks the posterior surface of the iris to the lens capsule, so easily done, as it lies in direct contact and needs no bridge or conduit to carry this sealing wax across to the surface with which it can unite.

7. Tenderness on pressure over the ciliary region. As the patient looks down make gentle pressure over the eyelid, at the same time compare it with the other eye, the tenderness will vary to the extent that the ciliary body is involved.

8. Sclero-corneal injection, manifested by a rosy ring around the margin of the cornea which gradually fades off into the pinkish color of the conjunctiva.

9. Punctate spots on the posterior surface of the cornea, Not always present. They are of a brownish hue, about the size of a pin point or larger. They are an accumulation of desquamated cells and pigment.

10. Edema and ptosis of the upper eyelid, present only when the iritis is severe, effecting the deeper structures of the globe, or if the iritis is long continued.

11. Intraocular tension increased. Not always a positive factor.

12. Hypopyon. Pus in the anterior chamber indicates severe iritis and infection.

13 and 14. No conjunctival secretion, but excessive lacrimation. Lids never glue together.

15. Vision impaired. The impairment increases as the iritis progresses. Complete occlusion and sometimes seclusion of the pupil by the exudate. Blurring of the aqueous humor.

16. Severe pain in the temples along the track of the supraorbital nerve.

The disease of the eye with which iritis is likely to be confounded is conjunctivitis. A differential diagnosis will readily prevent any such error.

IRITIS.

1. Hyperæmia of the iris.
2. Aqueous, murky and turbid.
3. Iris thick and swollen.
4. Pupil contracted and immovable.
5. Pain on exposure to light.
6. Synechiæ posterior (adhesions).
7. Tenderness on pressure.
8. Sclero-corneal rosy zone.
9. Punctate spots on cornea.
10. Occasional œdema and ptosis of upper eyelid.
11. Tension slightly increased.
12. Hypopyon occasionally.
13. No conjunctival secretion.
14. Free lacrimation.
15. Vision affected.
16. Severe pain in the brow and temple.

CONJUNCTIVITIS.

1. Iris natural, normal appearance.
2. Aqueous clear.
3. No swelling of the iris.
4. Movements of iris free.
5. No dread of light.
6. No exudate; no adhesions.
7. Very slight tenderness.
8. Uniform conjunctival redness.
9. Cornea clear.
10. Moderate œdema.
11. No increase of tension.
12. Never hypopyon.
13. Abundant secretion gluing lids together.
14. Copious lacrimation mixed with pus or muco-pus.
15. Vision unaffected.
16. Sandy, scratchy sensation in the eye.

Iritis is not likely to be confounded with glaucoma. The dilated pupil, greenish tint in the pupilary space, and increased tension will aid in making a clear distinction.

Pathological Anatomy.—In diseases of the blood vessels, due to infection, and particularly syphilis, there is a plastic exudate thrown out together with the cellular hypertrophy of the tunica media. This means a loss of elasticity and contractility. Pathologists are agreed that syphilis is the most frequent etiological factor in what may be called arterio-sclerosis. This new material thrown out is not true muscular tissue, but a low grade of tissue weak in its powers of resistance, and is a favorable site for disease.

The exudate is composed of fibrin, and in the pupillary space rich in pigment granules.

Where seclusion of the pupil has occurred atrophy of the iris will take place along the pupillary margin. If the entire posterior surface is adherent, and remains so, sooner or later atrophy of the whole iris will take place.

The prognosis will depend upon the cause and dilatability of the pupil by a mydriatic. In case of traumatism, if the injury has not been of too serious a nature, and a wide and complete dilation obtained, the prognosis may be regarded as favorable to the eye.

If the case is of constitutional disturbance and the symptoms round about the eye dispeaapr upon the administration, internally, of such anti-agents as are indicated, together with the free dilation of the pupil, the prognosis may also be given as favorable.

But on the other hand, if these pupillary attachments (synechia) refuse to be broken up, no matter how successful your constitu-

tional medication may be, the future of that will eye be dangerous and uncertain. It means interference with vision and mobility; it means a weakened eye and an exciting factor in sympathetic ophthalmia, and lastly, such an eye is likely, at some time or other, to have recurrent iritis.

Patients with such eyes are never free from danger. Slight colds, exposure, dust, facing a strong wind and eyestrain are favorable elements in the production of a recurrence.

If cause be syphilis or malaria the symptoms are, as a rule, easily relieved and cured. But such eyes are not safe. The poison of syphilis, with the weakened thickened vascular walls, means an interference of nutrition, weakened powers of resistance. They will not stand any undue strain which may be placed upon them in an emergency. Hence greater susceptability to disease consequent upon exposure, eyestrain or various ptomaines.

Treatment:—Atropine is the sheet anchor in iritis. It secures rest for the iris. It is the great anodyne. It paralyzes the sphincter muscle, puts at rest the mobility of the pupil. Breaks loose the adhesions. Puts the pupil well back out of the way. Adhesions are not so likely to occur when it is widely dilated. The use of atropine should be kept up until the pupil is widely and uniformly dilated. If constitutional effects occur, discontinue its use for the time being and then resume it again.

Hot local applications of boiled water to the eye are beneficial both as to the relief of pain, and second by the promotion of absorption of the atropine occasioned by the presence of moist heat. The eye with its swollen and impeded circulation is not a good absorptive surface.

Poultices should never be used on such an eye. In such cases where the pain is very great, the temptation of the patient is very strong to use poultices, and many times of the most miserable and filthy composition.

The eye should be screened from the direct rays of the light by using a screen of smoked glasses. Where the glasses are sufficient protection they are preferable as they screen the well eye also, light in the well eye affects the other even when covered and unexposed.

The dry cupping of the temple and occasionally the artificial leech (Hourteloup) gives relief in severe cases.

If the iritis is due to disintegration of the lens or a swollen lens, it must be removed, and that in a short time or infection and destruction of the whole interior contents of the eye will occur.

In penetration of the cornea with a resultant hernia of the iris an iridectomy must be done, thus relieving the iritis and preserving useful sight, which otherwise would become a disabled and in time a worthless eye.

In specific iritis, the mixed treatment (hydrarg. bichlorid. with pot. iodid.) should be pushed and continued until all the eye symptoms have disappeared and until reasonably certain that the constitutional poison has been eliminated. Frequently it will be found necessary to use the mercurial inunction as the best method of getting sufficient mercury into the system.

When there is rebellion of the stomach against the iodides and potassium salts, the hypodermatic injection of the succinate of hydrargyum, gives excellent results in many cases when the stomach is irritable, and where the patient fancies that his stomach already possesses several extra coats of metallic salts.

Rheumatic, malarial or tubercular cases must be treated accordingly. In many cases of iritis tonic doses of quinine are valuable and often times relieve many of the symptoms. Where the patient has been taking large doses of salicylates or mercurials it is a good plan to stop these for a few days, and give quinine instead, and many times marked benefit follows.

In cases where the iritis has resulted from an injury, and where a portion of the iris protrudes, the portion protruding should be excised and atropine freely used thereafter.

In traumatism of the iris, when the anterior chamber of the eye fills with blood and the cornea is unbroken, do not open the cornea to remove the blood, but direct to the use of hot antiseptic douches, and the use of atropine and rest, and in a few days all the blood will disappear leaving the eye clear and unimpaired, unless there be injury of some other structure aside from the iris. These can not be determined, however, until the blood disappears.

Lastly, in all cases of traumatism of the eyelids or globe, where the injury is severe producing an inflamed conjunctiva, the safe and sure rule to follow, if seen early, is to use atropine in weak solution (say 2 grs. to the ounce) to secure full and complete dilatation of the iris. In this way you may have put the iris out of harms way, prevented the possibility of adhesions, and many times have prevented what otherwise would have been a disabled eye. I desire to impress the fact of using this agent early and not waiting, because of the speedy formation of adhesions between the iris and lens.

Briefly.—In examining an eye notice:
1. The color of the eye.
2. The size of the pupil.
3. Compare it with the other pupil.
4. The mobility of the pupil.
In treatment:
1. Dilate the pupil thoroughly with atropine.
2. Protect the eye from light.
3. Absolute rest.
4. Constitutional treatment.

The Care of Epileptics.

By J. F. Edgerly, M. D., Superintendent Pennsylvania Epileptic Hospital, Oakbourne, Pa.

Epilepsy and the care and treatment of epileptics is a subject now engaging the attention of some of the most advanced thinkers of our times. Not only those in the medical profession, but of philanthropists, sociologists, and many public spirited, thoughtful and earnest men and women who are interested in the safety and purity of society, the advance and preservation of the best qualities of the human race. There is good reason for this awakening interest in the malady that so directly affects society. This disease claims two in every one thousand of our population, attacking every class and community throughout the country; all grades of intelligence are represented, and every State furnishes its quota. In one-half of all who have epilepsy the attacks begin in early childhood, and seventy-five per cent. of the cases begin before the age of twenty. Many of its victims are imperfectly developed, physically defective or degenerate, and probably forty per cent. are caused by or have a bad heritage; not a few being the children of epileptics or of parents who have kindred neuroses. There is but one State in this country (Connecticut) that prohibits the marriage of epileptics and it fixes a penalty of three years in the State prison for a violation of this law.

It is quite common in most parts of the country for epileptics to marry and beget progeny, who in turn multiply a defective and degenerate class, thereby increasing and swelling the dependent, non-productive and criminal ranks.

Ten per cent. of this sadly afflicted class are insane; many become mentally enfeebled by reason of the disease, while others have good minds, but the lives of all are dominated by their disease; they are debarred from useful occupation and employment, and cannot associate with others on an equal footing. The schools will not admit them; they cannot attend church or places of entertainment without causing disturbance and dismay by the exhibition of a fit; always producing confusion and alarm. Because of this peculiarly unfortunate malady and by no fault of their own, they are shut out from development, usefulness and the pleasures accorded to the rest of the world; being chronic, no general hospital would admit them for treatment, and those who are *not* insane cannot properly be received into hospitals or asylums *for* the insane. A large majority would, except for their epilepsy, be good and useful members of the community, self-supporting and productive citizens, and do not belong to the pauper class, and yet (except in four of our States who provide special hospitals and colonies for a small part of their epileptic population) the alms-house is the only door open to these grim sufferers. The sequence is mental, moral and physical deterioration, with but little hope and no purpose in life.

The gradation from moral laxity to crime is easy and many follow it. How can this disorder and the sequelæ that tends so directly to social, moral, mental and physical subversion, be corrected, mitigated, or in a measure prevented.

Various theories have been advanced for the solution of this problem. The most practical, humane and profitable, both to the epileptic and to the public is, without doubt, for each State to purchase sufficient land in a healthy location for a colony, settlement, or village, large enough for all the sane epileptics within its borders. Build hospitals where each case can be received, examined, studied and scientifically treated, and modest cottages for their residence. Institute industrial training schools, and teach these patients useful industries, trades and arts, by putting them into regular practical training on the farms, gardens and in shops; teach them *how* to be useful, then furnish them useful occupation. All trades and industries can be acquired by them, their occupation being directed towards the production of what is needed for their use and maintenance, and in this way they can in time be made nearly self-supporting. Their occupation is also an important factor in their treatment. The physical exercise stimulates the circulation, increases the growth and repair, and hastens the removal of waste; but the moral and mental improvement is even more marked, giving them something to think of and to hope for. They should at all times be under the observation of skilled attendants, their occupation, instruction, recreation, diet and rest, carefully prescribed by the superintending physician and a record kept of each case, marking the condition of health, degree of

usefulness, ability and deportment. To stimulate their efforts to do as well as possible, there should be a system of promotion, those who prove themselves efficient and worthy being employed and paid wages in proportiou to what they do. Careful rules or laws should be made for the government of the community and discipline kindly but firmly administered. All *sane* epileptics (subject to the judgment of medical examiners appointed by the State) should be sent to this settlement and their residence be compulsory. No patient being discharged except upon the recommendation of the medical superintendent and the approval of the State authorities. A large majority of these patients, except for a few minutes at intervals of weeks, months or longer, are able to do almost any kind of work, therefore needing less supervision than patients in other institutions; after being trained and taught, attendants and nurses can be taken from their own ranks. These patients, under direction, will perform duties that require training and skill that most other institutions must employ from outside.

I have purposely refrained from any reference to special medical treatment, as the hospitals provided should be fully equipped to give each case medical treatment according to its need, and should also contain an up to date clinical laboratory, with all necessary appliances for investigation and analyses.

A part of this plan has been in successful operation in Germany for more than thirty years and in a small way in France for fifty years, with much better practical results than have obtained in any other method of treating this neurosis; and the States in this country that have combined the medical and moral treatment of this most obstinate disease, report results never before attained in the history of medicine for the relief of this class of patients.

I trust that the interests now felt in this subject by those who have given it careful thought may become more general and as a result wise law be enacted and enforced in every State for the relief and protection of this great army of sufferers and that the public may be relieved of a dangerous element by the concentration of all epileptics in colonies that may be, as far as it is possible, supported by them.

Surgical Procrastination,

By C. P. Thomas, M. D., Spokane, Washington.

That procrastination in surgery is not only the thief of time, but also of precious lives, and the cause and source of much suffering and many deformities will be my endeavor to prove in this article.

Inasmuch as tuberculosis is the cause of death in such a large proportion of the human family, often beginning as local, lymphatic or joint tuberculosis, at points distant from the lung, I will first consider briefly the indications for and surgical treatment of it.

Its manifestations are manifold, the following being a few for which surgical intervention is required. Tuberculosis of the skin, (lupus vulgaris) of the mucous membrane, tongue, tonsils, pharynx, peritoneum and intestinal canal, genito-urinary tract, fistula in ano, mamma, bones and joints, tendons and lymphatics.

The surgical treatment of pleurisy with effusion, 85 per cent. of which are tuberculosis, is too well known to require describing, and it is my belief that the treatment of phthisis pulmonalis in certain forms and stages may yet be amenable to surgery.

The stages of tuberculosis, namely, inflammation, caseous degeneration and finally suppuration, are well known and readily detected. The process of dissemination being largely through the lymphatic system, the necessity of thorough and early eradication by the knife is self-evident, aseptic surgery having robbed us of the fear of mixed infection.

The indications as above suggested, where it is possible to do so, are plain. Procrastination here then means new foci, more suffering and sepsis, and the involvement of many and new vital organs.

Cancer.—Notwithstanding that cancer in its multiple manifestations has become generally recognized to be a surgical ailment, the country still abounds in so-called cancer cures, and cancer curers, some, I am sorry to say, belonging to the regular profession.

If all the simple, harmless growths that have been removed by these fakirs, and called cancers, were accumulated in one pile, it would be larger than would be the combined Egyptian Pyramids. The tendency of such growths to become malignant, after being irritated, is of itself sufficient cause for condemning their treatment by caustics. and if such growths are malignant, the caustic and dilatory treatment are still more reprehensible, and their only proper treatment is by complete and clean excision.

The little lump in the breast of the woman at or near forty should never be treated with iodin or poultices, but by complete removal of the breast and adjacent tissues, unless there be but one tumor and it is freely movable and lying between the normal

structures of the gland, instead of being a portion of the same, and the sooner and freer this is done, after the discovery, the longer her life will be preserved, the least suffering she will undergo, and this same rule applies to malignancies wherever found.

The physician who sits calmly by allowing his patient to bleed to death at or near the menopause thinking it is the normal and right thing for women to flow excessively at that time, while in reality she is dying from a malignant uterus, is as guilty of neglect and malpractice as it is possible for him to be.

Malignancy of the ovaries and other internal organs, if seen early, are more or less amenable to surgery, and this is why all tumors of these parts should be submitted to operation as soon as discovered to prevent these degenerative changes.

Appendicitis.—If I succeed in impressing but one fact upon you in this article, I want that to be that there is but one method of treating appendicitis. I care not whether it be the fulminating, acute suppurative, or catarrhal appendicitis, operate it, and do this right away. Just as soon as the diagnosis is made, get your patient into the nearest hospital, if it is practicable, not waiting twenty-four hours, but at once clean him up and remove the appendix.

The man who gets into the abdomen with the least possible delay, consistent with aseptic surgery, and out of it the most quickly, consistent with thorough work, including the turning in of the appendix stump after its amputation, is the one who will do the most good, have the greatest percentage of recoveries, the least amount of suffering and the fewest surgical complications.

While it may not be possible to positively diagnose appendicitic on first sight, in every instance, we may at least soon discover the condition of acute intestinal obstruction with beginning peritonitis, and this is all that is required to warrant us in opening the abdomen.

When, if we find instead of appendicitis, bands of adhesion or diverticula, internal or parietal hernia, kinking or intestinal volvulus foreign bodies, gall-stones, enterliths or tumors within the intestinal walls, strictures, pressure from intra-dominal tumors, or what not, we must then be prepared to find and remove the cause of the trouble. Often in these cases to wait to be able to positively diagnose the disease means to delay operating until it is too late, then to operate, lose our patient, and the respect and confidence of the community at the same time.

Cholelithiasis is a condition where delay means chronic cholecystitis with stricture of the duct, jaundice, and even rupture or perforation of the bladder or duct, followed by peritonitis and death. One such case came under my care last year, where the purulent contents of the gall bladder had been flowing into the peritoneal cavity for several days before she would submit to an operation.

Perforating ulcers or wounds of the stomach or intestines, are amenable to treatment if operated early, but not so, if delayed, Even typhoid perforation has been treated with success surgically. All abdominal gun shot wounds should be operated at once.

The matter of delay in operating in severe injuries until recovery from shock takes place, is an unsettled question, but my experience has been that where the patient is not pulseless when first seen, it is much better to operate at once and add a slight shock to shock, rather than to wait until the first shock is recovered from, then add another which would prove fatal.

Laryngeal stenosis due to diphtheria or membranous croup is another of the emergency conditions which demands immediate attention. Intubation here bring a simple and satisfactory remedy, not waiting until the patient is both asphyxiated and poisoned by the specific toxines.

Foreign bodies in the larynx is another case where delay in the majority of case means death, for though the particle cannot be removed from the air passages by tracheotomy, it is safer to leave the wound open and trust to its being expelled through it, than to wait for the same to occur through the chink in the glottis.

With skill of high order at every crossroads at the easy reach and command of every practitioner, there is no possible excuse for delay, and to my own great satisfaction the public at large is fast becoming aware of the good work that can be accomplished by taking the cases requiring surgery at as early a date as possible for the operation, and the practitioner, who neglects it, only brings condemnation and disgrace upon himself and the profession which he represents.

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Gonorrheal Opthalmia.

By J. B. McFatrick, President and Professor of Principles of Ophthalmology and Otology of the Northern Illinois College of Ophthalmology and Otology, Oculist and Aurist and President of Attending Staff to Willie Hipp Hospital, Late Professor of Ophthalmology and Otology of Bennett Hospital, Professor of Eye and Ear Surgery at Bennett Free Dispensary, Late Professor of Diseases of the Ear, Throat and Nose at Chicago College of Ophthalmology and Otology, Late Attending Surgeon to Cook County Hospital, Late Member of the Illinois State Board of Health. Chicago, Ill.

This much dreaded and destructive disease is for obvious reasons more prevalent with the male than with the female. As the gonococcus is so extremely poisonous in its nature that it effects the mucous membrane of the eye on contact, the physician should give particular attention to his instructions to the patient as to the care of the genitals and a thorough cleansing of the hands before they come in contact with the linen that he or others may use, or with parts of his own body; for it is from carelessness alone that the eyes are inoculated. The discharge about the eye being so acrid in its nature the parts become excoriated and large, ugly looking sores around the edges of the lids are the result. Here we find the internal administration of remedies for the rendering of the secretions alkaline of the greatest benefit and the discharge is many times cut short and the pain relieved by this thoughtfulness on the part of the medical attendant.

There is nothing in my opinion so effective for this purpose as sanmetto and its immediate relief is frequently as pronounced as in the internal administration ot this remedy for acute inflammation in the early stages of gonorrhea, when micturition is extremely painful.

I have known cases where the cornea has entirely sloughed away within thirty-six hours from the time the poisonous secretions came in contact with the conjunctiva.

Therefore the greatest care is incumberent upon the patient as far as the thorough and continual cleansing of the eye is concerned.

Within a short time after inoculation the eyelids swell and by their pressure upon the eye, constricting the circulation and cutting off the nourishment to the cornea, the parts soon break down from the friction and continual contact with the diseased parts. In the early stages, immediately after inoculation, we have a free and copious mucopurulent discharge; the upper lid extends down over the lower lid and is puffed like a sac containing fluid, making a thorough examination of the eye most difficult. Such an examination is extremely essential that a case of threatened ulceration of the cornea may be successfuly combated. These observations should be made without causing pressure on the eyeball and this is best accomplished by lid elevators. If these are not at hand, they are easily improvised by bending the bent end of a hairpin in the form of a hook and placing this hook, or elevator, under the upper lid and another under the lower lid and drawing them apart. At this time, an assistant holding the elevators, the eye should be thoroughly washed with a warm saturated solution of boracic acid. After the eye is thus cleansed the upper lid should be painted with a camel's hair brush which has been saturated in solution of nitrate of silver, ten grains to the ounce. This method is to be employed in preference to irrigation, which is done by placing a syringe up under the lid and the parts thoroughly washed. The objection to the irrigating method is that there is great risk on the part of the operator of having his own eye infected by the solution and splashing back coming in contact with his conjunctiva. For the purpose of irrigating, Dr. Andrews method should be employed.

This cleansing is of the utmost importance and should be resorted to frequently enough to keep the eye practically free of secretions. A solution of cocaine, two grains to an ounce, should be applied sufficiently often to control the pain, but its use should not be continued longer than necessary, as it promotes suppuration of diseased coats of the eye. It can be resorted to every ten to fifteen minutes if necessary, but usually once an hour is sufficient.

If we find the elevators are too irritating and cause additional swelling of the lids we must depend on thoroughly cleansing with a saturated solution of boracic acid and by irrigation and in the absence of the contrivance previously referred to, an ordinary medicine dropper, the glass point of which is thoroughly smoothed, should be employed.

The cormea must be examined once each day and if we have an ulcer of this membrane the elevators must be employed. In treatment of an ulcer, the eye must be thoroughly cleansed as previously described, when a small piece of absorbent cotton twisted on the end of a toothpick can be employed in wiping out and thoroughly cleansing the ulcer itself, which is usually on the cornea. This, of course, can only

be tolerated by the patient after the use of cocaine.

After the ulcer is thus cleansed we take a small fine pointed camel's hair pencil saturated in a solution of nitrate of silver, thirty grains to an ounce, and after shaking off the solution so as to leave the pencil practically dry, the ulcer is touched with the brush thus prepared.

Another method that I have found very satisfactory and prompt in its results is to place a wooden toothpick in a ninety-five per cent. solution of carbolic acid and throwing all of the liquid off of the toothpick, the ulcer is touched with the stick thus prepared. By cleansing the eye, painting the lids with nitrate of silver and treating corneal ulcers as described, we should expect a material change in the condition of the eye within twenty-four hours.

It is very seldom that both eyes are affected at the same time, and therefore it is essential to protect the eye that is not inoculated. This is best accomplished by taking a small watch crystal, around the edge of which we place a strip of absorbent cotton, and then seal the crystal by means of the cotton with colodion to the face about the eye. This prevents contagion by contact and does not interfere with the usefulness of the eye thus protected.

In summing up, I would say the treatment I employ for these difficulties is sanmetto to change the acrid secretions to alkaline and thus avoid the burning, scalding tears and hot discharges; nitrate of silver, ten grains to an ounce, for painting the upper lid, and nitrate of silver, thirty grains to an ounce, or carbolic acid ninety-five per cent. for ulcers of the cornea.

Typhoid Fever.

"Experience is fallacious and judgment difficult."

This aphorism was spoken by Hippocrates and is true.

There is a continued fever in East Tennessee and elsewhere, widely distributed, to which physicians of much "experience" apply the indefinite term "typho-malaria." These gentlemen imagine they are dealing with a distinct something, a morbid entity.

Let us state their position, as far as it responds to definition, and, in doing so, we realize that we are dealing with the nebulous. In a patient with typhoid the malarial element is assumed to be present. Too often there is nothing to sustain the contention but an unsupported assumption. At the risk of being sarcastic, the diagnosis is the creature of "oxperience," not of the microscope, nor is it backed by any rational therapeutical observation, for the fever is ready for the most approved quinine onslaught. It cares nothing for cinchonism.

Dr. Woodward is the legitimate father of typho-malarial fever. He first contended that it presented a distinct pathology. The gentlemen of "oxperience" are wedded to the first contention. They seem to be ignorant of the fact that Woodward recanted, that he no longer claimed for his child a distinct morbid entity, a place in an intelligent nosological system.

Evidently "oxperience" is not aware of the recantation. It still adheres to a premature conclusion. It is a pathological cassabianca, refusing to leave a wrecked ship. This stern devotion to a "lost cause" may partake of the "heroics" but not of the "logics."

Let us look to the term itself. By the use of "typho" is the specific involvement of Peyer's patches conceded? If so, is not typhoid the ruling pathology? If not, why use a term misleading from "turret to foundation stone?" If the former alternative is taken, does not cinchonism yield barren results, and is not the diagnosis a lying delusion? Why stubbornly confront futile cinchonism and the microscope? The performance may be amusing, but the boldest who think will not contend that it is instructive.

Again, there is a grave objection to the use of "typho-malaria." To the laity it means false security. No steps are taken to protect the well. The false diagnosis is followed by new made graves.

Is it possible that we cannot recognize typhoid from malarial fever? Osler says that "in rare instances typhoid fever and malarial fever may coexist in the same patient." From the same authority we learn that of nearly four hundred cases of typhoid fever, all with blood examination, and a majority of them coming from malarial regions, in not a single instance were the malarial parasites found in the blood. There is now no excuse whatever for the continued use by practititioners of the term typho-malarial fever, and still less for the falsification of vital statistics by sending death certificates signed with this diagnosis. The principle is bad and the practice is worse, since it gives a false sense of security, and may prevent proper measures of prophylaxis."

But "oxperience" is not to be challenged. It is omnipotent. It alone achieves the victories of medicine!

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The first point, emphasized by all, is the witholding of all food for 24 hours or longer; this is not at all hard on the child, but, as Griffith says, is very hard on the tender hearted and anxious mother, but we should impress on them the necessity of this course of treatment for, as Jacobi quotes, "under ordinary circumstances milk feeds babies, but in these extraordinary circumstances it feeds bacteria." So that we can confidently tell the mother that there is no digestion to speak of, and even if food is allowed there is no assimilation or proper digestion and hence withholding is not depriving but helping.

All agree upon calomel and castor oil as the best for evacuating the bowels, after which we may use salol, bismuth, resorcin and other antiseptics.

Irrigation of the stomach, by an elastic catheter, and of the intestinal tract is recommended, the temperature of the water may be varied as the general condition demands. The administration of opium should be done with understanding, Jacobi says it has no place in the incipient stage, but it has a decided effect for good even in the smallest child when the bowels have been freely cleansed and there is pain, restlessness and tenderness.

For general collapse, hot rectal injection of 1 to 5% solution of whiskey, salycilate or benzoate of sodio-caffein, strichnine, camphor and musk, are mentioned by Jacobi; nitro-glycerine, digitalis and atropine are added by Griffith; ether hypo., subcutaneous injection of the normal salt solution by Fisher. In general Jacobi thinks cotton or thin flannel much better than linen next to the skin.

Cane sugar instead of milk sugar should be added to the child's diet when artificial. When returning to food after starvation, he uses the following mixture:

Barley water, 5 oz.; white of one egg; one or two teaspoonfuls of whiskey; cane sugar and salt to improve the taste.

Rudisch's formula is also recommended as being very easy of digestion. It is as follows:

Acid. Hydrochlor. dil. ½ teaspoonful; water, one pint; milk, one quart; bring to boiling point.

Griffith says that many of the cases of severe acute summer diarrhea are instances of heat exhaustion, the idea of bacterial cause alone is not a safe foundation for a plan of treatment, and he recommends a change of climate as the most effective.

Fisher mentions the flour ball, made by suspending a small bag, made of cheese cloth, full of flour in boiling water for six to twelve hours, the flour becomes a hard mass which must be grated but is very nutritious. A teaspoonful of the grated powder to ten or twelve teaspoonsful of water and a pinch of salt to one feeding.

He thinks milk should be withheld for at least one week.

These are the authorities on this subject and we should all listen to what they say, further, we should have some systematic way of dealing with the diarrhea of young children. When called to see a case of disordered digestion in a child under 18 months old, at any time from the 1st of June to the 1st of October, do not give any old thing you may have but study the case carefully and prescribe intelligently, and try by all the lawful means to impress the mother with the fact that the case may be a dangerous one and she must carry out your directions firmly. With so many of us in general practice, it is the co-operation or not of the mother that tells the tale.

METRORRHAGIA.

Defined as "excessive blood flow from the womb at menstrual or any other period." Marion Sims says "it may be due simply to granular erosion; to engorgement of the cervix; to fungoid granulations in the cervical canal or in the uterine cavity; to polypi of the os, the cervix, or the cavity; to a fibroid tumor, intra-uterine or intramural; to inversion of the uterus; to hæmatocele; or it may be a sign of malignant degeneration." (We have it to deal with in cases before and following miscarriages and abortion), The causes, of course, vary

more or less with the different conditions existing.

Marion Sims also says: "I would not ignore such general means as we admit to be available, but I would never put off a uterine exploration in any confirmed case of abnormal flow; for where there is an inveterate menorrhagia there will always be some organic cause for it."

And yet how often cases are met with where the losses of blood have been profuse and long continued, until the patient is almost exsanguinated, and relief has not been obtained, from a dread on the part of the patient of having any investigation; a want of knowledge of the importance of it; or, perhaps, the assurance of some adviser that "it is your age, madam—you must have a little patience and all will come right." Crying "peace! peace! when there is no peace."

The treatment, both general and topical, we need only summarize here, applications for granular erosion (Sims speaks highly of chromic acid). The bilateral incision of the os, in fibrous engorgement, curetting and suitable applications in fungoid granulations; removal of malignant growths where possible and when seen sufficiently early (which is not always the case); also the fibroid growths and the polypoid when practicable; the use of ergot, &c., in the former, and in some cases, as favorably tiding along over the menopause as can be accomplished, with what general improving and blood supplying remedies as can be adapted to each case. To this the Bovinine seems especially suitable. And so with these few thoughts we will close this brief resume of this broad and important topic.

THE SECRETARY OF MEDICINE AND THE PUBLIC HEALTH.

Some of our western brothers seem to be very much in favor of a medical cabinet officer to hold court in Washington and to advise the President in the very important matter of the public health.

It is noticed that a part of his duties will be to see after the purity of our drugs and the genuineness of our foods, in addition he must be a politician with a pull, able to control so many votes or with so much influence in so many States, and the dear old public can eat grass and drink branch water.

This is indeed a day of if-you-don't-see-what-you want ask-for-it, but it will be a sorry day when the doctors get into politics, not bad necessarily for the doctors as they make as fine politicians as ever walked the streets of Washington, but essentially bad for the patients and the people who must be ruled and advised by a political physician. The exodus to Washington every four years on account of a new President with a lot of new offices, has not formerly contained a large number of medical men, except such as really wanted a change of climate for their health and who saw no harm in taking a small consulate among the mountains of Europe—but if we are to be represented as a profession in the President's Cabinet, there will be several subordinate offices as a matter of course, it will take a special train to carry the N. C. delegation alone to see about the appointment.

Our medical societies, both State and sectional, will degenerate into political bodies with more or less influence but with absolutely no scientific or benificent power. We have now a Surgeon-General of the Army and for the Navy and for the Marine Hospital Service, let the duties of the latter be enlarged so that he will have entire control over any epidemic disease, that may be unusually prevalent or malignant and we will have all that we need or the public health demands. These men are not politicians, they do their duty which is necessary and important.

A medical member of the Cabinet could have no fitting duty that is necessary, and whose work would be simply to keep a tight grip on the wires.

SELF PRAISE IS HALF SCANDAL.

There is quite a common opinion abroad in the country that it is better to blow your own horn than to have it grow rusty from non-use.

To praise one's self is never the proper thing to do in any business, especially in the profession of medicine does it come with exceedingly bad taste.

We notice in one of our exchanges an editorial on the election of one of the Associate Editors to the Presidency of a Medical Association.

Now the young man who has been elected president may be all right, but the fact that he must give himself a write up is indicative of something seriously wrong and takes away three-fourths of the honor of his election. The custom of writing editorials on subscription lists, advertisements, and the editor, should be discouraged. There is no editor in the country who is the only one, no matter how learnedly and beautifully he writes, there are others who can write right well. If you get an office for goodness' sake keep your mouth shut, and folks will think you got it on merit.

HUNTER McGUIRE, M. D., LL.D.

The "Medical Sentinel" of Portland, Oregon, for July, has a very readable sketch of the life of our celebrated Southern surgeon.

Dr. McGuire was born in Winchester, Va., in 1835, but we can hardly believe it, remembering how he looked six months ago,

The years set lightly upon him, and to be around and see him work one would never think of sixty odd years.

Down here in Dixie we all know Dr. McGuire so well that a sketch of his life reads like yesterday's news. Blood will tell, he is directly descended from a Prince of Ireland, who ruled in the 15th Century.

Dr. McGuire's college life was spent in those stormy days from '59 to '61, and his leading 300 medical students from Philadelphia to Richmond was a foretaste of what his life should be. When the storm broke in '61 he was where the lightning flashed the brightest and the thunder rolled the deepest.

His association with Jackson makes his position a permanent one so long as history shall last; so long as men shall live and talk, they will tell of Jackson and his surgeon.

LIGHTS AND SHADOWS OF A DOCTOR'S LIFE.

Although to every one life is made up of changing scenes, varying like the colors of a kaleidoscope, still, to none perhaps is it more marked than to the physician—the overtaxed man or woman who has not an hour that can be positively depended upon. The careful, painstaking, conscientious ones who carry their patients on their hearts through sleepless nights and weary days, relinquishing without complaint a leisure hour with friends and a waited for magazine and the much prized author. The bruised and bleeding are brought to them, the call from sudden emergencies and dangers comes, where their presence is like oil on the waters, bringing courage and cheer where all was dismay and consternation. They listen with aching hearts to the stories of mistakes and sorrow, keeping them sacredly, forgetting their own cares and griefs many times in those of others. Thus, perhaps, although often unconsciously, fulfilling the injunction of the "good book" of "bearing one another's burdens." Not only to one generation are their kind ministrations given, but many times to a second and third.

And although it may be, that in some instances, some of the most well meant services may not receive due appreciation or reward, yet there are pleasant little returns which are spots of sunshine in a doctor's heart.

Kind words of remembrance come from distant patients of bygone days. The expectant mother, whom he received in his hands, years before, a little infant, says in loving confidence, "you attended my mother."

In many a home there are joy and thanks beyond words to express when the crisis is passed and the loved one safe.

When danger and disaster darken the household, the least one may voice the feelings of all, when it cries "send for dock'r! send for my dock'er!

And so, to the call of duty, these brave soldiers, these "undecorated heroes, press on, and with "clean hands and a pure heart," trusting in Divine mediation, may they not at the last hope to hear the welcome "well done!"

WILL IT PAY?

In this day of rapid developments in the use of electricity in the treatment of disease, the above question will naturally come to the mind of many.

The answer should be strongly in the affirmative, for the reason that the results obtained are satisfactory to both physician and patient.

But before the physician invests in a battery he should have some general knowledge of electricity and its effects on the human economy.

To use a battery in an empirical way, not knowing the difference between an ohm, volt or ampere; being ignorant of the different effects of the different poles, will only bring chagrin to the operator and disgust to the patient.

We should know the difference between the static, faradic and galvanic currents; should understand something of "Ohm's" law, and know that from the negative pole of the galvanic current, we have an alkaline, liquefying effect, said pole increasing pain; in mild currents absorbing cicatricial tissue, and increasing the blood supply to a part; while from the positive pole the effects are quite different, being of acid character, coagulating blood and albumen, toning the circulation of a part; is of a sedative nature and will control hemorrhage. Many mistakes have been made by operators who are ignorant of these points, and by using the wrong pole, matters have been made worse and the whole blame saddled on electricity. Or, perhaps, an inferior battery has been used with the same results following.

If we would have success in the use of this powerful factor for healing disease, let us study its effect, and give it as much "show" as we do the drugs we use, and we will find it will repay us an hundred fold. Its field of usefulness is of wide range, being used successfully from the treatment of fibroids, as set forth so scientifically by Apostoli, of Paris, down to the removal of a corn, wart, or, bunch of superfluous hair on the fair lady's features.

Electricity has come to stay and every year witnesses its advancement, and he who would be in the front ranks must, for his own sake, and that of his patient, give it a place in the treatment of disease.

DIAGNOSIS OF TYPHOID FEVER.

With the prevalence of typhoid fever at this season, the aid to diagnosis of the disease, should interest practitioners generally. There is no question, but that the disease appears in a milder form and with different manifestations than in former years and hence the greater difficulty in acurate diagnosis. It is a well known fact that in the beginning many cases are attended with constipation instead of showing the pea soup diarrhœa formerly so characteristic of the disease. The only land marks the physician has in the early stage of the trouble are:

First. The insidious onset with pain in the back and head and perhaps occasional nose-bleeding, which at this season will, of course, lead him to suspect this disease,

Second. The characteristic temperature curve which in the South does not present itself as a general thing, because of the general custom of giving quinine to eliminate malaria.

Third. Enlargement of the spleen, a rather late symptom not being recognizable as a general thing until the 7th to 10th day.

Fourth. The rose-colored spots, pathognomonic when present, entirely absent in some cases and also a late symptom.

Fifth. Widal's test depending upon the agglutinative powers of the blood of a typhoid patient upon a living culture of the typhoid bacillus, a test which is scarcely accessible to physicians in the large cities and of course entirely impracticable for the country practitioner.

Lastly, we have Ehrlich's test, the so-called Diazo reaction, a test which will respond with the urine of 98 per cent. of typhoid cases and whose absence between the 7th and 21st day is almost positive evidence that the disease is not typhoid.

Many practitioners are deterred from using this test by the complex descriptions given of it in most text books and yet it is a very simple procedure that can be carried out by any one with but a rudimentary knowledge of chemistry.

For the test, two solutions, a glass tube and a bottle of ammonia are necessary.

The first solution consists of:

℞ Acid sulphanitic, gr. 36.
Acid muriat. pur. ʒ iii.
Aqua. destill, q. s. ft. ʒviii.

This solution is practically permanent if kept well corked in a dark place.

Solution No. 2, is made by dissolving 1-2 gr. of nitrite of soda in 50 ♏ of distilled or rain water.

This solution should always be fresh and can readily be made by keeping on hand the stick nitrite of soda, cutting off a fragment equivalent to 1-2 grain and dissolving in 50 ♏ of water.

The ordinary direction for making the test are then followed.

50 ♏ of Sol. No. 1, are mixed in a test tube with 20 drops Sol. 2, and 50 ♏ of urine added to this and well shaken. Aq. ammonia drawn into the glass tube is then floated on top of this mixture without mixing with it. At the line of contact of the two fluids there will be a carmine red ring, upon shaking the fluid, the froth will be colored pink.

The presence of this test in a patient with continuous fever will go far towards leading to the correct diagnosis.

CRIMINAL ABORTIONS.

The great frequency with which criminal abortions are now practiced, especially in the larger cities, should prove a matter worthy of investigation by the proper authorities, and an effort ought to be made by the medical profession to throw some obstacles in the way of their successful performance. At present, a catheter or other instrument is inserted into the uterus by the professional abortionist and his victim instructed by him to call in a physician when labor begins. The physician confronted with such a condition, has no alternative but to bring the abortion to a successful close. Under ordinary circumstances he becomes the assistant of the abortionist, practically finishing up the job he has begun. When the case ends fatally with a coroner's inquest he is subjected to the unpleasant notoriety attending such affairs, the abortionist always escaping unscathed, as the only witness against him is mute forever.

The status of the physician in regard to these cases, has often been a subject of discussion in medical societies, and the con-

clusion arrived at has always been that a physician has no alternative but to attend to the patient after once having been called in.

If the medical profession would agree not to attend such cases at all, but have them all sent to the city hospital, the reputable physician would be relieved of this work and the patient would still have the best of attention. However, she would be deprived of the ability to have the affair conducted with the secrecy which characterizes these affairs usually. The patient would be subjected to the mortification of being attended in a public institution by strange physicians and in danger of recognition by visitors to the hospital. In the course of time the fear of such exposure would have a tendency to lessen these criminal practices. Physicians still continuing to take such cases would soon be marked as accessories to abortionists and reputable ladies would thereby be deterred from entering their offices.

DOSIMETRY.

Dosimetry, as its name implies, is the method of prescribing the active principles of plants, and of other drugs used in the treatment of disease, in "mathematically measured" doses of a minimum size, and repeated at frequent intervals, until the desired results are obtained. The method was brought into prominence by Prof. Burrgreave, of Ghent University, about fifty years ago.

Acting on the theory that the vaso-motor system played a leading role in diseased conditions, he thought by acting promptly through this system that acute diseases, many of them, could be aborted, or quiekly brought under control. There are advantages to be had in this method which cannot obtain by the use of the Galenical preparations as found on druggists' shelves; for who knows the strength of these crude preparations, or how much of the active principle is contained in say 30 drops of a tincture, that may have deteriorated on account of long exposure to light and air? By the use of the alkaloids given in small doses and repeated often we have reliable results to follow.

In this day of 'progress and advancement in diognosis and pathology the demand for a more concise therapy is urgent.

The fastidious palate of the average American calls for something more pleasant and palatable than the old fashioned pills and potions.

In the Dosimetric system we have a means of prescribing which is both sensible and scientific; convenient, palatable, precise in results and convincing to patient and physician.

Why should we not use these remedies in this form? We have long ago got weaned away from giving tr. opii for relief of pain, or nux vomica when we wish the toning effect of strychnine, and when we have at hand granules of well known effect and accurate dosage the advantages are readily seen.

With such remedies as aconitine, veratrin, brucine, spartenie, atropin, hyoscyamine and hyoscine, digitalin and emetin, and, in fact, when the active principles of all drugs in common use are presented to us in such convenient form, the progressive, wide awake physician should avail himself of them.

Another advantage is the safety of administration. How often are we disappointed by results from the crude drug; either the results are nil, or we get too much, and our patient suffers in consequence.

The method has much to commend it, and will well repay investment and investigation, and if you are not "joined to the idols" and not too much tied down by custom and routine, you will surely be convinced of the advantage of Dosimetry over the older way.

ADENOIDS IN CHILDREN.

Post-nasal adenoids in children are blamed for the causation of quite a number of general diseases.

Pediatrics has two interesting editorials on this subject, and among the consequences of adenoids are mentioned chronic catarrh with a semi-purulent discharge, deafness, false croup, arrested development of the facial bones with resultant deformity, and, perhaps, even the "scrofulous facies and habitus."

But the most important effect of these growths is upon the mind of the growing child, a certain amount of mental hebetude being present in nearly every case. Some of the theories to account for this mental condition are defective oxygenation and deafness.

Guyes' theory of an obstructed lymph drainage is mentioned, but Ribot's explanation is more plausible; he holds that acts of attention are accompanied by temporary suspension of respiratory rhythm, and the occluded nose of the adenoid child prevents this and so interferes with the psycho-physiology of the act of attention.

In discussing the etiology and prophylaxis the editor rather inclines to the opinion that they are usually tubercular, a benign, localized form of feeble virulence, but which may develop into caseous, scrof-

ulous glands with metastases to the lungs, bones, and other organs. "The question of the prophylaxis of adenoids becomes, therefore, merged in the vast subject of the prevention of tuberculosis."

Surgical interference, when once developed, meets the indications fairly well, and the constitutional treatment of the patient must not be lost sight of for a moment.

"SUGGESTION" IN THERAPEUTICS.

While in the past there has been a great deal of charlatanism, and that which appeals to the "gullibility" of the laity, in the use of "mesmerism," "hypnotism," "suggestion," or whatever we may choose to call it, yet to-day light is being thrown on this wonderful and mysterious force and we are bound to say that the "world do move."

Schools of suggestion, journals, well edited, are appearing in many of the larger cities, and the fact is forcing itself on the minds of many well qualified medical men that there is something in it after all. We are more or less familiar with the effects of "suggestion" in our practice; as witness the brilliant results to follow a "placebo," with careful instructions as to mode of taking, etc. In other words we "suggest" to the mind of our patient the result we want to follow, and lo! often it follows, and this result has not been accomplished through the action of our "medicine," but is purely psychical.

Many other instances will occur to our mind in which the mental effect brought to bear was the most potent factor in the amelioration or cure of disease.

And even in organic disease the results are sometimes astonishing, not as to the curative properties, but in the amelioration of the patient's sufferings. A case in point occurred in the writer's practice a few years ago. A lady suffering with cancer of os and anterior vaginal wall, with involvement of bladder. The suffering was great, necessitating the constant use of opiates. "Schlatter, the divine healer," came by, and the lady boarded the train to the town where he was; he laid hands on her. She returned home, and strange to say did not take another dose of opiates, but really did light house work, and improved mentally and physically for nearly four weeks. Of course, the termination was fatal in a few weeks.

This illustrates that the mind is an important factor in many diseased conditions, especially of a functional character.

And these little occurrences show us that there is something beyond.

Charcot, of Paris, than whom France produced no more brilliant man on nervous troubles, has done much to bring "suggestion out of darkness into light, and many others are opening the way. So it would be well for us not to condemn too hastily, a method, or science, of which we know so little and have a desire, perhaps, to know less.

The writer has long since come to the opinion that "there are others," and that dosing our patients with medicine, is not always best, or that it is the only proper way to meet the onslaught of disease.

Let us, therefore, hear more of the subject before we condemn it as entirely unworthy of our attention.

THE CHICAGO BOARD OF HEALTH.

Chicago seems to have a very efficient and progressive board of health.

The New York Medical Journal comments in an editorial on the circular sent out by the board, stating that they were prepared to give practical instruction to young men in sanitary science and public hygiene. No fee is charged and only graduates in medicine and senior undergraduates of reputable medical schools are eligible as "internes" in the laboratory.

All applicants will be required to pass an examination in physics, chemistry, bacteriology and biology.

This is getting things down on a practical common sense basis, but just how they can get along without charging a fee we don't see, (being doctors), however, if they can afford to give practical instruction of this kind free it will certainly be worth a great deal to the public health and to the Chicago Board of Health.

QUININE IN MALARIAL HEMATURIA.

As a matter of fact, perhaps the profession will always be divided upon the question of giving quinine in pernicious malarial fever, but it is hard to understand why quinine, the only positive specific we have in medicine perhaps, which is so certain in the ordinary forms of malaria, should be contra-indicated simply because the patient has a more than ordinary dose of the poison.

In reality it is only a matter of dosage, in Malarial Hematuria, instead of giving 5 grs. give 10; instead of administering by the mouth, use it hypodermically. So much of the quinine given in the severer forms of malarial infection, is never absorbed, in fact is never given. To give a man 10 grs. of quinine in capsule or in tablets every 4

hours, the man being comatose, yellow as a pumpkin and half dead in general, will increase the hematuria, because in reality he is not getting quinine at all. Give your medicine in a way that it will be absorbed and don't be afraid of blood in the urine, the patient will never die from hematuria, but he may on account of the malaria in his blood—unless you get some quinine into that blood. It is the pressing need of quinine that causes hematuria in malaria.

THE YELLOW FEVER SITUATION.

There is a marked difference in the way yellow fever is managed now and the methods employed a few years ago. The outbreak in Virginia, at the Soldier's Home, was promptly and successfully dealt with, and the management of these cases show the efficiency of our Marine Hospital Service and the ability of Surgeon-General Wyman and his workers.

Florida has developed a few cases at Key West, in the extreme South, which is now well in hand, and the progress of the disease will doubtless be speedily arrested. The Government will likely transfer the garrison now located at Key West to McPherson Barracks near Atlanta.

New Orleans has also had a case or two but no exacting quarantine has been laid and everything is controlled by the health officers.

This year will suffice, perhaps, to give the serum treatment of this disease a test that may enable us to say just how valuable it is, at any rate the time is near at hand when we may say to yellow fever—so far but no farther.

DIET IN CHRONIC DISEASES.

The extreme restrictions in diet that were formerly inflicted upon patients with chronic diseases are gradually giving way to more rational measures.

In diabetes the patient is no longer confined to an absolute meat diet, as experience has taught that such a diet of itself is injurious to the organism. In chronic gastro-intestinal troubles the same rule holds good. When it is remembered that the majority of chronic diseases are the result in great part of excesses in eating and drinking, especially of particular kinds of food, a great improvement may often be effected in such diseases if the particular kind of food that has caused the condition be prohibited for a time.

Diabetics will often be found to have consumed large quuntities of sugar forming food stuffs. Those with gastro-intestinal diseases will have indulged to excess in starches, sour and highly seasoned foods and pastries. Many such cases admit the excessive use of tea or coffee. The very prevalent habit of pouring down several glasses of ice water with a meal and 2 or 3 glasses of iced tea should not be lost sight of. The excessive use of alcohol and tobacco also being important factors. But above all the habit of eating hastily without proper mastication of the food should be remembered as a very important factor in the causation of chronic diseases.

The correction of such abnormal practices which are bound to bring sickness to the healthiest individual should be the first step in the treatment, then a plain healthy diet with plenty of exercise in the open air will give results with the proper medication that can not be obtained otherwise.

A HOSPITAL FOR STATESVILLE.

Most towns of any size are now-a-days feeling the need of public institutions for the treatment of the sick. Through the benevolence of Mr. C. S. Billingsley, Statesville will soon be in possession of a modern building to be used as a public hospital.

The appointments of the place will be first-class in every respect, and taken in connection with the medical talent and surgical ability to be found in Statesville, we shall expect good work from this new hospital.

THE SOUTHERN HOMEOPATHIC MEDICAL ASSOCIATION.

The 1899 meeting of this Association will be held at Asheville, N. C., during November. This is the first meeting the Homeopaths have ever held in North Carolina, and we are somewhat surprised at this attempt as they are very few in number.

This coming of the triturations and dilutions into the State should cause us to more zealously guard our laws regulating the practice of medicine and to stop talking so much about interchangeable licenses.

BOOK REVIEWS.

The Treatment of Pelvic Inflammation through the Vagina. By William R. Pryor, M. D., Professor of Gynecology, New York Polyclinic; Consulting Surgeon City (Charity) Hospital; Visiting Surgeon, St. Elizabeth Hospital, New York City. With 110 Illustrations. Cloth, 248 pages, $2.00, net. Philadelphia, W. B. Saunders, 925 Walnut St. 1899.

Pelvic Inflammations constitute a large part of the diseases the busy doctor is called

upon to treat, and while the majority have had some experience in treating this class of cases, all of us need more light upon the subject. Dr. Pryor in this book gives us the teachings of experience which are very valuable, and they will help us in our every day work. The book is written in the spirit of aggressive interference, though a palliative method of treatment is laid down for each disease. He does not believe in opiates in these inflammations but eliminants. To read this book is to get many original and helpful idea in regard to the treatment of pelvic diseases. Most of the illustrations are taken from life and show accurately what we may find in actual work.

Materia Medica, Therapeutics, Medical Pharmacy, Prescription Writing and Medical Latin, A Manual for Students and Practitioners. By William Schleif, Ph. G. M. D., Instructor in Pharmacy in the University of Pennsylvania, 12 Mo., 352 Pgs. Cloth, $1.50 Lea Brothers & Co., Philadelphia and New York.

This is one of Lea's series of Pocket Text Book, the set is edited by Gallandet, and will cover the entire field of medicine.

Sixteen volumes will form the series, all 12 mo., cloth-bound volumes, at the uniform price of $1.50 per volume.

The work before us is intended to afford a condensed, yet comprehensive, text-book and work of reference on materia medica, therapeutics, and a range of cognate subjects which can be grouped with manifest advantage.

Concise and complete paragraphs are given conveying the physical properties, physiological action, therapeutics and toxicology of each medicinal agent.

Chapters are added on Prescription Writing, Medical Latin, Medical Pharmacy, and Practical Anesthesia.

The book is printed on extra heavy paper, is well bound, and is in every way a desirable book in itself, as well as representing with credit the others of the series.

A Text-Book of Pharmacology and Therapeutics, or the Action of Drugs in Health and Disease. For the use of Students and Practitioners of Medicine. By Arthur R. Cushny, M. A., M. D., Aberd., Professor of Materia Medica and Therapeutics in the University of Michigan Medical Department, Ann Arbor. In one handsome octavo volume of 728 pages, with 47 engravings. Cloth, $3.75, net. Lea Brothers & Co., Philadelphia and New York, 1899.

In the preparation of this work Prof. Cushny has attempted to "bridge over the hiatus which exists between the phenomena occurring in the normal organism and those which are elicited in the therapeutic use of drugs."

The subject is treated entirely from an experimental standpoint, making a most exact book to follow in practice. The arrangement of the matter is in six parts. Organic substances with chiefly a local action; organic substances which depend upon absorption for their effect; alkalies, alkaline earths, acids and allied bodies; the heavy metals; ferments, secretions and toxalbumins; menstrua and mechanical remedies. A full bibliography is given for each drug and the book can be made the basis of the most profound study of any medicine. The chapter on ether and chloroform gives a well prepared statement of the present knowledge concerning these very important drugs. The author states that the *Grundriss* of Schmiedeberg was the inspiration of his own effort, and it is in every way worthy of the inspiration. The book is beautifully printed in two size type.

The work is to be commended for the rational study and the reasonable teaching of the action of drugs.

A Text-Book of Diseases of the Nose and Throat. By D. Braden Kyle, M. D., Clinical Professor of Laryngology and Rhinology, Jefferson Med. Col.; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes Hospital; Bacteriologist to the Phila. Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc., with 175 Illustrations, 23 of them in colors. Octavo, 646 pages. Cloth, $4.00 net; sheep and half Morocco, $5.00, net. Philadelphia. W. B. Saunders, 925 Walnut St. 1899.

The publisher has gone beyond his promises in this work, the preliminary announcement stated that there would be about 630 pages, 150 illustrations and 6 lithographic plates, the finished book shows 646 pages, 175 illustrations and 23 lithographs, but the subject matter of the volume justifies in an ample manner this richness of publication.

The concise manner in which Dr. Kyle presents his subject and at the same time the clearness of every detail make it an easy book to read. He shows a perfect familiarity with his work and has the gift of being able to make it clear to others.

The chapter on operations on the Larynx is written by Prof. W. W. Keen, of Jefferson, describing his own method of doing complete laryngectomy.

The beauty, which is more than skin deep, of the book must commend itself to the profession.

The Hygiene of Transmissible Diseases: Their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. Abbott, M. D., Professor of Hygiene and Director of the Laboratory of Hygiene, University of Pennsylvania. Handsome Octavo Volume of 312 pages, with 44 Illustrations, about 20 Charts and Maps. and a number of important Tables, Price in Cloth, $2.00, net. W. B. Saunders, Publisher, 925 Walnut St., Philadelphia. 1899.

This book must prove of interest not only to physicians, but also to health officers and to laymen. How to prevent disease is worth a dozen how to cure.

The growth and development of our modern life in large cities and towns make it imperative that we should know every thing possible concerning transmissible diseases.

The physician is often asked for advice in regard to a threatened epidemic, and in every case he should be able to give a safe and intelligent answer. We feel sure that by the reading of this book, a lot of important and necessary information will be obtained, of a subject which is of vital interest to physician and layman.

The press work and binding make a beautiful volume of convenient size.

Transactions of the Southern Surgical and Gynecological Association. Volume XI. Eleventh Session, held at Memphis, Tenn., December 6, 7 and 8, 1898. Published by the Association, 1899. Dornan, Printer, Philadelphia.

This eleventh volume of the Transactions of the Southern Surgical and Gynecological Association is a very handsomely bound and exceedingly well printed book of over 500 pages with numerous illustrations. The article by Kelly, of Baltimore, on Lacerated Perineum contains 8 beautiful illustrations, and his new method of obtaining a perfect result in these troublesome cases is clearly shown. Parham's article on Thoracic Tumors we have noticed before. Frank T. Meriwether contributed a well written paper on the Diagnosis of Appendicitis.

McRae, Joseph Taber Johnson, W. L. Robinson, Matas, and other well known southern surgeons have papers in this volume.

The Secretary, Dr. Davis, of Birmingham, Ala., deserves all praise and commendation for the painstaking work he has spent upon this book.

The Association has certainly the right man in the right place, with Dr. Davis as secretary.

The next meeting will be held at New Orleans the latter part of 1899, under the presidency of Dr. Joseph Taber Johnson.

Transactions of the Medical Society of the State of New York for the year 1899. Published by the Society. Dornan, Printer, 100 N. Seventh St., Philadelphia.

The Ninety-Third Annual Session of the Medical Society of the State of New York was held at Albany January 31st, February 1st., and 2nd, 1899. Addresses were made by Osler, Jacobi and Roe.

Papers were presented by Edebohls, Morris, Phelps, Roswell Park, Baruch and others well known among the profession. The printed Transactions is a handsome book of 532 pages, well bound and printed in very easy type to read.

The next meeting of the Society will be held in Albany January 30th, 1900, with Willis G. MacDonald as President.

LITERARY NOTES.

The "New Lippincott" Magazine for September, 1899.—The complete novel in the New Lippincott for September is entitled "The Duchess of Nona," by Maurice Hewlett. This is an Italian story of the picturesque and dramatic days of Cæsar Borgia. A young English girl of simple birth ascends the Ducal throne of Nona and is wretched in her rich surroundings. The passion of an Italian lover brings on a crisis which has the charm of a great stage picture. Dr. Hewlett's handling of the plot is masterly, and his power has never been so evident as in this magnificent scene.

The short fiction of the month is made timely and brilliant bay story of Mrs. Schuyler Crowninshield, the wife of Admiral Crowninshield of the Navigation Bureau at Washington. "Marta's Inheritance" is one of this gifted author's most characteristic Cuban stories, where Spanish Dons, pretty women, witty dialogue, and a decided dash of adventure combine to allure and sustain interest.

Ruth McEnery Stuart contributes "Picayune: a Child Study." The reader suspects a tear, but finds a smile, so intimately blended are humor and pathos as he follows the fortunes of little "Steve," whose "reg'lar circumf'rence legs" are to the poor black boy so great a source of early sorrow and later profit.

"Donald Murray's Romance" by E. F. Benson, author of "Dodo," is a study of hope deferred in the heart of a lonely English bachelor. "The Volcano Goddess: a Legend of Hawaii," by Charles M Skinner, is both exceedingly curious and seasonable. "A Sunday Eclogue," by Maurice Thompson, is a humorous story of a Sun-

day's forbidden fishing in Virginia that will be found quaint and enjoyable.

Under the title, "The Effrontery of Paul Jones," George Gibbs gives a clear, picturesque description of the capture of Whitehaven by the dauntless Paul Jones and his little boat, "Ranger." "Where Stockton Wrote his Stories," by Theodore F. Wolfe, M. D., Ph. D., will appeal to every one who has enjoyed the fruits of Mr. Stockton's wonderful imagination. "Entertaining English Royalty," by "Ignota," gives intimate and interesting particulars relating to Royal English house parties such as are now seasonable. Other papers of unusual merit and timeliness, are: "The Question of Yachts," by Charles Ledyard Norman; "Effects of Equal Suffrage in Colorado," by Virginia G. Ellard; "The National Export Exposition," by Dr. W. P. Wilson; "Thirst: a Thrilling Incident of Southwest Texas," by Albert Bigelow Paine; "Bronze Button Heroes: a Study of the G. A. R.," timed to the great gathering at Philadelphia, by George Morgan; and "Ancedotes from the Antilles," by the Hon. John Stephens Durham, Ex- Minister to Haiti and San Domingo.

The verse of the month is rendered unique by the appearance of two brief but pointed poems by Mr. I. Zangwill, "In the Morgue" and "In the City." There is also a graceful poem by Florence Earle Coates; and a quatrain by Madison Cawein.

The Forum for September is a number of world-wide interest. Mr. William T. Stead, editor "Review of Reviews," gives his views of "The Conference at The Hague;" President Robert E. Jones of Hobart College discusses "Washington's Farewell Address and Its Applications;" Mr. Ramon Reyes Lala, a native Filipino, writes entertainingly of "The People of the Philippines;" Prof. Rudolf Eucken of Jena tells of the "Progress of Philosophy in the Nineteenth Century;" Charles Denby, Jr., contributes an article on Cotton-Spinning at Shanghai"; Sir William H. Rattigan, an eminent Jurist of India, portrays "Indian Famines"; and A. Cahan furnishes a review of "The Younger Russian Writers."

Editor William T. Stead, of the "Review of Reviews," writes the leading article for the September Forum. In "The Conference at The Hague," Mr. Stead discusses the important questions that it was called upon to deliberate; every vital act has received a careful review in this timely paper. After a searching survey of what was actually accomplished, he says, that we stand too near the Conference to adequately appreciate the magnitude of its labors or the immensity of the influence which it will exert in the history of the world; but the historian of the future will probably take the meeting of the Conference at The Hague as marking the beginning of a new era of international union, and the visible beginning of the great work of the federation of mankind. Owing to the many conversations that Mr. Stead has had with the Czar of Russia, touching the original ideas that resulted in the call of the assembly, he is specially adapted to speak on this great and momentous topic.

The American Monthly Review of Reviews for September contains a remarkably attractive group of contributed articles. The timeliness of the subjects treated is seen by a glance at the table of contents. The war in the Philippines is summed up by John Barrett; the out-come of The Hague conference is set forth by W. T. Stead; the subject of trusts is discussed by George E. Roberts and by Henry Macfarland; Hezekiah Butterworth writes of "The Future Value of the New England Farm," while Prof. L. H Bailey answers affirmatively the question, "Does Farming Pay?" Sylvester Baxter tells of the progress made by the State of Massachusetts in her public library system, and Gilbert K. Harroun describes the work of the Cuban Educational Association of the United States; a sketch of "The New Secetary of War" is contributed by Henry Macfarland, while Dr. William Hayes Ward writes of Colonel Ingersoll and Erica Glenton of the late Grand Duke George of Russia.

ABSTRACTS of One Hundred of the Leading Articles of the Month.

Examination of the Blood in Gynecology.

The value of an examination of the blood in diseased conditions of the uterine appendages is very great says Griess in the American Journal of Obstetrics.

He admits that a leucocytosis in a woman with pelvic pain does not always indicate suppurative disease of the pelvic organs, still it is a great help in saying positively whether or not there is pus.

A leucocytosis of ten thousand per cubic millimetre or more in a woman with pelvic pain and temperature, persisting after the acute symptoms have disappeared, is strongly indicative of suppurative disease.

A pus tube dragged by adhesions to some abnormal situation may feel like a fibroid

or other tumor and it is only by a leucocyte count that we can tell the real condition.

The differential diagnosis between typhoid fever and pus tubes can be made easily, as the presence of a leucocytosis determines the latter and rules out typhoid.

The writer mentions several other conditions which might produce a leucocytosis, such as tuberculosis, abscess cavity in other situations, suppurative pyelitis, furunculosis and chronic Bright's disease.

In colored women with suppurative pelvic disease there are usually menorrhagia and metrorrhagia, the red count is reduced one-half and the leucocytes to about one-half of what we would expect.

The method described by Cabot is recommended in making a blood count.

Careful attention must be paid to the technique and a number of counts are necessary in the same case before they are worthy of consideration.

Primary Carcinoma of the Lung.

Secondary deposits of cancer in the lungs usually follow the disease in other organs, but as a primary disease cancer of the lung is rare.

Wittauer, in the New England Medical Monthly, says that it is frequent among the miners of Scheeberg, due to alcoholism and the mode of living, the extremes of temperature and the fumes of the pits.

The disease may originate in the lymphatic vessels, the alveolar epithelium, bronchial mucous membrane, or the bronchial mucous glands.

It may occur in two forms, disseminated miliary deposits or as localized masses of large size, with ulceration and gangrene, similar in character to large tubercles.

The diagnosis is difficult, the onset is insidious, pleuritic chest pains seldom localized, sense of constriction and pressure, shortness of breath, and finally orthopnea and attacks of suffocation.

A persistent dry cough is usually present, little influenced by opiates, and is doubtless due to irritation of the terminal filaments of the vagus. Progressive emaciation, circumscribed protrusion of the chest. Percussion discloses a one-sided and often peculiar dullness.

Exploratory puncture useful as an aid in diagnosis, the large polymorphous cancer cells may be found which, according to Frankel, justifies a diagnosis of malignancy.

Expectoration may be absent, Loud transmission of the heart sounds through the swelling is a striking symptom.

Among the secondary symptoms may be mentioned the swelling lymphatic glands, sudden edema, distention of the subcutaneous veins, hoarseness, difficult deglutition, neuralgic pains, finally stenosis of the air passages.

Hectic fever, profuse perspiration, pale bronzed skin, are among the general symptoms.

Duration from six months to two years.

Treatment is purely symptomatic, Kroenlein has operated on such cases, but an operation is not to be considered.

Pearson, of Asheville, reported a very interesting case of primary carcinoma of the lungs, with tuberculosis, to the N. C. Medical Society, see Charlotte Med. Journal for June, 1899.

The Psychology of Narcotism.

Narcomaniacs are divided into three classes by Sudduth in the Quarterly Journal of Inebriety.

Those who have acquired the habit through hereditary tendencies, and who find in the use of narcotics a physical pleasure; those who, though physically strong yet are led into the habit by social customs as the result of environment; those who turn to narcotics for the relief of the pain of existence.

In regard to the first class he says there is no chance of cure, with them there is no shadow of turning and the sooner they end their days the better for themselves and mankind at large.

The second class, much larger than the first, can get along very well, they suffer only from the direct effect of the drug, being removed from the moral stigma under which other classes labor.

The third class the author dwells upon, as they dwell among us, perhaps, as father, mother, brother, sister or friend.

These usually commence with the milder sedatives and narcotics, and are of slow growth. A diseased condition of the will is established, and it is this condition of the will that must be studied more and more if we would know the proper treatment. Most persons confuse will and volition which is an act of the will.

Faith is one of the principal attributes of a strong will. The inhibitive aspect of the will which enables its possessor to say no, is largely a matter of education. Man by civilization learns to inhibit his desires and to hold in check his feelings.

We are taught to *wish* and to *wait* for many things in this life, upheld by the hope of their fulfillment in some future existence and that by restraining our passions and appetite we are serving our best good.

Indulgence continued creates an appetite,

not of the body but of the mind, fearful in its intensity.

Hunger for food, even unto starvation, shows no comparison in its suffering to the agony of the alcoholic inebriate or the opium fiend when deprived of his wonted potion.

To cure we must have in our treatment a system of psycho-physics by which, if possible, we must establish an absolutely altered mental state with healthful environment until such time as the individual has regained possession of his will.

Cancer.

The pathology and therapy of cancer, with special reference to cancer of the stomach, is discussed by Bernays in the American Journal of Surg. and Gynecol.

The word cancer is used in its general sense, including both sarcoma and carcinoma. A differential diagnosis between these two conditions is not easy nor is the line clearly drawn between these and benign tumors, as even the microscope cannot be relied upon to make a differential diagnosis between sarcoma and some forms of granulomata.

Lymphoma, gumma, and even tubercular growths, may be confused with malignant tumors.

He states that under the head of cancer we group a great many things that etiologically are widely different, that some forms are purely of extraneous or parasitic origin, while the majority of both benign and malignant tumors are developmental in their origin.

Cohnheim's misplaced embryonal cells, if ever supported by scientific proof, will be found in the form of "rests," "vestiges," or rudimentary organs.

The cancers cured by the Christian scientists, or by the air and water of certain health resorts, are found to be benign growths that had been cured by the natural powers in spite of the treatment. He states that he has never seen a case of spontaneous cure or one that had ever been cured by medication.

The serum and inoculation treatment he does not think much of, but they can be used as something should be done even in hopeless cases.

Inoperable cases depend very much on the man in charge, Dr. B. would operate when Dr. A. would be afraid. Cancer is curable when it is possible to remove all the offshoots from the primary nodules.

Operations must be extensive to be curative; amputation of the breast, when done correctly, leaves a larger wound than exarticulation at the hip-joint.

Some operators take three, four or even five hours for the work.

Recurrence should be treated in the same way as the primary tumor, complete extirpation.

Examine the lymphatics leading into and out of the tumor, remove all suspicious tissue, look out for involvement of the skin and muscle and remove freely.

Early and radical operative interference when the disease is clearly curable, urging the operation in such cases, but if there is considerable involvement of the lymphatics the operation can not be strongly urged, still it is a duty to attempt radical extirpation. Even when the dangers of an operation are very great some hope may be held out and in impossible cases a partial operation may be done for its psychical effect and for the postponement of the racking pain.

In cancer of the stomach we may excise or we may do one of the forms of gastro-intestinal anastomosis. We *must not wait* until a *tumor can be felt*, but operate if there are symptoms of chronic stomach trouble in persons above middle age which point to ulcer or stenosis. The exploratory incision is free from danger, and leads to an early diagnosis.

The chemical action of the stomach may be normal and yet malignant disease be present.

Leube is quoted as giving the following indications for operation, repeated hemorrhages; severe pain and frequent vomiting, which persists after medical treatment and dieting; perforation of an ulcer of the stomach.

Bernays advice is that the most important indication for surgical interference is a suspicion that the case is one of cancer. *When in doubt operate.*

Suitable cases for Schlatter's operation are not common, but from Kocher's statistics it is clear that the time has come when we may speak of permanent cures in cases of cancer of the stomach.

Catgut in Abdominal Surgery.

Dr, E. Copeland, in the Medical Age, is very much in favor of catgut in abdominal work, for treatment of the pedicle, ventrofixation of the uterus, and closure of the abdominal incision.

His method of sterilization is to boil in alcohol for one hour. To prevent waste the alcohol is recondensed by a very simple device made to fit into the cork of a wide mouth jar or bottle containing the alcohol and catgut.

In treating the pedicle, he ligates *en masse* using the Staffordshire knot which is rein-

forced by carrying the ends of the same ligature around the pedicle just back of the primary one.

In ventrofixation of the uterus he uses a No. 6 gut and the sutures are not carried through the skin but are passed only through the muscle and the peritoneum and left as buried sutures.

A wound that is not healed in from six to eight days will not heal by immediate union, and he claims that the fine catgut used to bring the cutaneous surfaces together will hold from eight to twelve days.

He thinks the use of silver wire for buried sutures a step backward in surgery, and quotes Morris as saying that silk worm gut is an instrument of the devil when used for buried sutures.

The Etiology of Yellow Fever.

On November 8th, 1897, the President appointed Passed Assistant Surgeon Eugene Wasdin and Passed Assistant Surgeon H. D. Geddings a commission to investigate the cause of yellow fever.

Most of the work was done in Havana, New Orleans, and Delaware Breakwater.

Their full report is dated July 10th, 1899, and the conclusions reached are as follows (N. Y. Med. Jour.):

That the micro-organism discovered by Professor Giuseppe Sanarelli, of the University of Bologna, Italy, and by him named "*Bacillus icteroides*," is the cause of yellow fever.

Yellow fever is naturally infectious to certain animals, the degree varying with the species; in some rodents local infection is very quickly followed by blood infection; and while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man.

Infection takes place by way of the respiratory tract, the primary colonization giving rise to the earlier manifestations of the disease.

In many cases, probably a majority, the primary infection or colonization in the lungs, is followed by a "secondary infection," or a secondary colonization of this organism in the blood of the patient. This secondary infection may be complicated by the co-instantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life.

There is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily a septicemia, inasmuch as cases do occur in which the *Bacillus icteroides* can not be found in the blood or organs in which it might be deposited therefrom. There exists no causal relationship between the *Bacills X* of Sternberg and this highly infectious disease, and the *Bacillus X* is frequently found in the intestinal contents of normal animals and of man, as well as in the urine and the bronchial secretion.

The *Bacillus icteroides* was not found in any body other than one infected with yellow fever; and whatever may be the cultural similarities between this and other micro-organisms, it is characterized by a specificity which is distinctive.

The *Bacillus icteroides* is very susceptible to the influences injurious to bacterial life; and its ready control by the processes of disinfection, chemical and mechanical is assured.

The *Bacillus icteroides* produces *in vitro* as well as *in vita*, a toxin of the most marked potency, and from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.

Infant Feeding

The mortality in infants due to artificial feeding is classified as follows, by Dr. Hugh N. Leavell in Pediatrics: First, improper diet; second, lack of knowledge of the infant's digestive capacity; third, individual peculiarities of the infant.

The artificial foods, except cow's milk, are not recommended except for perhaps a short time, they make fat babies, but they are anemic, flabby and lack muscular tone.

The capacity of the child's stomach at birth is about one and one-fifth ounces, and we often see two to three ounces given.

The three elements in the ideal food, sugar, fats and the proteids are better given in small percentage greatly diluted than to give concentrated. The proteids when given in excess may cause more trouble than the other elements.

Bauer's formula is given as being easy to remember in modifying cow's milk.

Milk laboratories where a physician can send his prescriptions for so much milk of such composition per day as is being done in some of the large cities would certainly be a great convenience. Such an institution would place infant food into the physician's hands that he could depend on and the benefit to the child would be great and certain.

Regularity as to feeding is emphasized by the author, every 2 hours until 3 months old, twice at night, never more; from third to fifth month every two hours and a half with once at night, after the fifth month every three hours during the day and none

at night should be strictly observed, It is also important to begin at a fixed hour each morning.

Blood Changes in Therapeutics.

An address on the importance of the recognition of certain blood-changes, and especially toxemia, in our therapeutics, was delivered by Dr. John V. Shoemaker before the Ohio State Medical Society, reported in the Medical Bulletin for July.

The alterations occurring in the blood were divided into three classes; first, those in which there is a diminution or absence of certain principles of the blood which are necessary for healthy cell development and metabolism, as an example the peculiar bodily disorder and mental impairment caused by the removal of the thyroid gland, was mentioned.

Second, those in which certain principles normally present in the blood, are in such relative or actual excess as to disturb metabolism, diabetes is given as an example as there is a glycohemia before there can be a glycosuria.

Third, those in which abnormal elements in the blood disturb cell-action and cause manifestations of disorder or symptoms of disease.

As regards the latter class he took up certain poisons absorbed from undigested and fermented food in the intestines, which gives rise to a group of symptoms called "biliousness."

Skin affections may also be caused by similar conditions of the intestinal tract.

The gastro-intestinal origin of toxins is also shown in tyro-toxicon poisoning and botulismus. The same symptoms are capable of development from the saprophytic bacteria under certain conditions.

Toxemia may come from the pus bacteria and Rohe believed that post-operative insanity was due to sepsis. The fact that all bacteria, even of the same kind, are not equally virulent.

And so we have true diphtheria bacilli present in the nose and throat of an apparently healthy child.

Dr. Shoemaker is of the opinion that many anemias, neurasthenics and cases of impaired nutrition are caused by the toxemia due to chronic diphtheria infection of the upper air passages, the treatment in such cases should take into consideration the local condition as well as the general state of the blood.

The speaker stated that we may have icterus, in which there was no obstruction of the liver or the bile passages, but due entirely to the condition of the blood.

Albuminuria may also be due to changes in the blood.

Antitoxins were touched upon, and he believed they had a very promising future, to diphtheria antitoxin, thyroid and suprarenal extracts he gives an established place in our medical armamentarium.

He suggested supervision by the profession or by the government over the manufacture and sale of serum remedies.

Obstruction and Perforation of the Bowel from a Gall-stone.

C. S. Martin, in the University Medical Magazine, reports a case in which the bowel was perforated and obstructed by a gall-stone in a patient aged 52, male.

He had a series of cramping spells for about three weeks which could be fairly well relieved by ordinary treatment.

The last attack was more severe and the patient did not respond to treatment, and on post-mortem all the organs were found normal except the bowel; a hard mass was found at the junction of the ileum and jejunum very firmly lodged in the gut, about 18 inches above the point of lodgment was found a perforation three-eighths of an inch in diameter, with all the appearances of being of recent origin.

The mass weighed 195 grains, and on examination by Taylor, of the Pepper Laboratory, proved to be a gall-stone and feces.

During the past two years the patient had, on several occasions, suffered from, apparently, acute indigestion, being produced by errors in diet and yielding readily to simple treatment.

He complained of severe pains in the region of the umbilicus during these attacks, but the pains were easily controlled.

The Puerperal State and Puerperal Hemorrhage.

The derivation and classification of the puerperal state and puerperal hemorrhage are made the basis of a paper by Gossett in the N. Y. Med. Journal.

He takes issue with the authorities in that they have circumscribed and limited the meaning of the word puerperal.

Instead of beginning at the completion of labor it more properly begins with the first labor pains and lasts for the following six weeks.

For Hirst's four periods, pregnancy, labor, the puerperium, and lactation, he would substitute the three periods, pregnancy, the puerperal state and lactation as being more correct.

He sums up his belief as follows, "that

the puerperal state begins as soon as the labor pains begin for the emptying of the pregnant uterus, and lasts until the uterus is emptied and the woman recovers from that pregnancy, whether it be at first, second, third, or ninth month of pregnancy."

Convulsions due to pregnancy are called puerperal convulsions no matter at what stage or period they occur, so with mania and insanity if due to pregnancy. And the author asks why the line is drawn so tight on puerperal hemorrhage.

The Pathology of Alcoholism.

Alcoholism is a disease which consists of abnormal conditions, caused by the internal use of alcohol, says Dr. J. W. Grosvenor in the Quarterly Journal of Inebriety for July.

He says that a case of acute alcoholism is a case of acute poisoning, a case of chronic alcoholism a case of chronic poisoning.

Alcohol is a paralyzer and depressant, and its general effect upon the moral, mental and physical powers is paralysis, partial or complete, temporary or permanent.

The author discusses the moral, mental and physical pathology of alcoholism.

The moral pathology is shown by lack of self control, change in disposition and character. The mental pathology is shown by loss of memory and embarrassed intellectual processes, hallucinations of sight and hearing and later dementia may occur. The physical pathology is found chiefly in the brain, causing the convolutions to be narrow, shrunken and flattened as well as inducing changes in the cells, in the spinal cord similar to those occurring in the brain.

Pathological changes take place in the nerves as evidenced by multiple neuritis and alcoholic epilepsy.

Alterations occur in the blood, fatty degeneration of the heart, gastric catarrh, cirrhosis of the liver, also in the spleen, pancreas and notably in the kidneys. Four-fifths of Bright's disease in Scotland is produced by alcohol, on the authority of Christison.

Ocular changes occur in alcoholism.

The author sums up his paper by saying that scarcely any disease, perhaps none, exerts so extensive a pathologic influence as alcoholism on the organs, tissues, and fluids of the body.

The paralyzing effects of alcohol extends throughout the nervous system from center to periphery. This paralytic effect is seen not only in the body but in the intellect and moral sense. The principal degenerations in alcoholism are fatty, fibroid and atrophic. Fat is substituted for normal tissues; alcohol withdraws water from the tissues and thus they become dry and hardened and at length assume a fibroid character; through lack of proper nutrition the cells become shrunken and atrophied. By these degenerations the anatomical integrity of the organs is destroyed, partially or wholly, and their functional activity is impaired. Thus the whole system suffers and in time becomes a wreck.

Alcohol has been aptly termed "the genius of degeneration."

Malaria in Children.

The examination of the blood in children suffering with malaria has often a negative result, according to Moncorvo, of Rio Janeiro, in Pediatrics.

In a continued article on this subject he states that while he agrees with Manson and Ross that the mosquito may transmit the disease, yet from certain well known clinical facts we must also include drinking water among the causal agents.

He further points out the relationship between disordered digestion and, particularly, enlarged stomach and malaria in children. Indigestion may be the effective predisposing cause, and bowel trouble in children who are taking proper food should make us watchful for malaria.

He does not think that the milk of the mother, suffering from malaria, can transmit the disease to the child, of course, the air being left out of the question, then in a nursling taking no water infection could only come by the mosquito, and he states that the children most affected with paludism in Rio live in quarters where the mosquito abounds.

Any trouble affecting the general health of the child may determine a serious attack of malaria, a simple cold, bronchitis, but certainly by inherited syphilis and even by phthisis, as he does not believe in the antagonistic theory of malaria and tuberculosis. The type in children is very unnatural, worthy of the title *defaced*, as applied by Bohn. The temperature is uncertain, the height of the fever coming on perhaps at night, quotidian in type, rarely tertian, never quartan.

Dr. Moncorvo calls the evolution of malaria in children *anarchistic* as they are so abnormally disposed.

He finds the liver more often enlarged than the spleen and states that owing to the position and shape of the spleen in the young child it is hard to outline.

The fact that malaria has a marked tendency in children to become worse and assume a pernicious character, as stated by Lewis Smith, is emphasized.

Forty-three Cases of Typhoid Fever, Mortality Rate Zero.

The antiseptic and eliminative treatment of typhoid fever was used in forty-three cases by Dr. Edward C. Senfert (N. Y. Med. Jour.), without a single death. Not a grain of any coal-tar antipyretic nor a single drop of alcohol was given internally. Rest in bed, milk diet, cold sponging with equal parts of alcohol and water, 1 grain of colomel every two hours for twelve or fifteen doses, followed by salol in 5 gr. doses every 2 hours for one week, then naphthalin in 5 gr. capsules every 3 hours for the second week; for the third week 2½ grs. of carbonate of guaiacol are given every 3 hours until convalescence.

For insomnia, sulphonal in 10 gr. doses; for headache, the ice-bag; for meteorism and diarrhea, turpentine and opium in emulsion.

The average duration of the fever was 21 days, the longest case lasting nine weeks; the ages ranged from two years to fifty; the highest temperature was 105½.

Rose spots were present in 35 cases. Tenderness and gurgling in the right iliac fossa in 43 cases, tympanites in 22, diarrhea in 30, constipation in 13, epistaxes in 37.

Widal's reaction was obtained in the last 23 cases. Ehrlich's in the others.

Chronic Malaria and its Treatment.

The comparative ease with which acute malarial infection may be controlled by quinine, is in striking contrast to the unyielding stubbornness of the chronic form.

Dr, W. H. Thompson in the N.Y. Med. Journal, discusses some aspects of chronic infections and their treatment.

For the periodical headache of chronic malaria, he finds ergot in drachm doses, repeated in 2 hours if necessary, will relieve the pain without fail.

He mentions a curious fact in connection with the administration of ergot, that a much smaller dose of quinine will induce cinchonism when given with ergot.

The combination of quinine and spices is highly recommended, such as ginger or capsicum. The value of paregoric as an adjuvant to quinine is strikingly illustrated by the report of a number of obstinate cases of malaria among soldiers.

They had been dosed with quinine, Warburg's tincture and arsenic but to no good purpose, they were then given ½ oz. of paregoric three times a day, with 15 grains of quinine and ginger twice a day, and in 47% of the cases the temperature fell to normal in 24 hours without rising again.

No relapse was noted in any of the cases who took the paregoric treatment. This treatment had a decided and unlooked for antistuporous effect, like that of a cardiac and general nervous stimulant.

Dr. Thomson thinks that quinine is the main stay in the disease, that its administration is so often neglected or given so carelessly that the patient drifts into the chronic state. He says that a single true malarial attack should be treated for six weeks and we would have fewer relapses and see less of the chronic forms. He uses first a mercurial purge, then the quinine in three equal doses an hour apart, so that the last dose comes from one to two hours before the expected chill.

Phosphorus Poisoning in a Baby.

Dr, Henry Koplik reported the case of a male infant, ten months old, poisoned by 1-800 of a grain of phosphorus given three times a day for two weeks. (N. Y. Academy of Medicine Reports in Pediatrics).

The child was brought to the clinic on account of intense anemia and enlarged spleen; it had been breast-fed but was rachitic. One minim of the officinal oil of phosphorus was dissolved in one ounce of oil and a teaspoonful given three times daily. Within two weeks the child developed fever and diarrhea with enlargement of the lymph nodes behind the sterno-mastoid; later eczema appeared on the scalp, petechial eruption on the extremities. The phosphorus was now suspended, but in five days large blotch-like hemorrhages appeared on the extremities and abdomen, blood in the stools, continued enlargement of the glands, epistaxis and bloody stools with parenchymatous bleeding after opening the glands at the back of the neck.

The child died of exhaustion.

Leukemia and malaria had been excluded by examination of the blood, and with the exception of the suppurating nodes of the neck, the other symptoms and signs followed closely the picture of phosphorus poisoning.

Tropical Fever in the Philippine Islands.

Calentura is the Spanish name for a very common type of tropical fever prevailing in the Philippines, according to Dr. L. L. von Wedekind in the Medical Record.

It occurs most frequently in the unacclimated, during the dry season, and after exposure to the sun.

Few, if any, prodromal symptoms, onset being sudden, chilliness, temperature 102–103, gradually increasing to 104–105, myalgic pains, cephalalgia, anorexia and asthenia with gastric disturbance.

Quinine has no specific effect, large doses will, of course, reduce the fever, so will the cold bath, but only temporarily.

Calomel and aconite are the remedies.

The calomel is given in small frequent doses until two or three grains have been taken, then a saline, afterward four drops of the tincture of aconite every two hours for three, four or possibly five doses, according to effect. For the marked myalgia an opiate at bed time may be necessary. Preventative treatment is to stay out of the sun during the dry season, or use a white umbrella, loose white clothes, a large light helmet, and then it is best to keep in the shade.

Manila during the dry season is suggested as a health resort, except for malaria which is only developed and the enervation resulting from long residence without change renders convalescence exceedingly slow.

Aneurism of Aorta in a Child.

Bertram Rogers reports a case of aneurism of the aorta in a child 10 years and 4 months old (Pediatrics for Aug. 15th).

Family history was good, no personal history of rheumatic fever, chorea or scarlatina.

She was sick in all about nine months; when admitted she was anemic, and a loud rough systolic murmur could be heard all over the cardiac area, the heart's apex was displaced an inch outward, fremitus distinct, other organs normal.

Temperature was raised and no drug had the slightest effect in reducing it.

The child died suddenly, and on post mortem an aneurism was found between the tip of the right auricle and the pulmonary artery in the auriculo-ventricular groove.

The explanation suggested for the occurrence was that the wall of the aorta had become infected, causing weakening and finally it gave way.

Cutaneous Electrolysis.

The outfit, recommended, for removing superfluous hairs, warts, moles, etc., by Dr. Fred J. Leviseur, in the Med. Record, consists of a galvanic battery, a rheostat, a milliamperemeter, a pair of cords, a sponge electrode, a needle holder and a needle; the needle holder should be so constructed that we can carry the needle at an angle like a pen; the finest sized sewing needle should be used with the holder; for hair a pair of square end forceps are necessary.

To avoid pain, introduce the needle before turning on the current; methyl-chloride spray is the only local anesthetic to be considered.

Foaming is a sign of success, the hairs should be removed at once. Nevi, warts, and even xanthomatous deposits, may be removed by electrolysis.

For keloids it is a failure, and for some cases of angiomata it can not displace the knife.

For lupus, if used early, it promises much.

Malignant cutaneous affections electrolysis can not compete with the knife.

The author closes by stating that electrolysis, with the needle attached to the negative pole, is more than mere cauterization; compares it to a most accurate and equally distributed injection of a caustic solution into the tissues.

Modern Obstetrics.

Ralston Lattimore, in the Ga. Journal of Medicine and Surgery, describes the method of the Sloane Maternity Hospital of New York city, which has 140 beds for post-partum cases and 45 for waiting women.

The routine treatment and attention as given in such a hospital, of course, can not be given in private practice, but as we are all striving for the best results we should be willing to carry out the very best methods.

Waiting patients, not in actual labor, are kept at the domestic work of the institution, sweeping, scrubbing, sewing, etc., if their condition is otherwise good.

When the first stage begins, she is given a soapsuds enema, vaginal douche of bichloride 1-5000, she is allowed to walk around or sit down just as she wishes.

As the second stage comes on she is carried into the delivery room, where a gown and long drawers, that cover the feet, legs and thighs, but are loose and open around the waist, are put on, a vaginal douche of 1 per cent. lysol is given with a soapsuds enema, the perineum scrubbed with soap and water and wiped with bichloride 1-5000. The attendant prepares his hands as for a major operation. One per cent. solution of lysol is used to dip the hands in, as it not only helps to sterilize but acts as a lubricant as well.

The perineum is usually saved intact by the use of chloroform and holding back the head until the perineum is distended and stretched.

Crede's method is used for the placenta.

Vaginal douche is then given, 1-5000 bichloride, 110 deg., but never into the uterus unless for special reasons,

Any laceration of the perineum over 2 cm. is sewed up.

A snug binder is put on the abdomen and

breast. Liquid diet until the fourth day, then full diet.

Bowels are moved on the third day by one-half ounce each of castor oil and glycerine; salts not used unless the breasts are distended.

Allowed to sit up on the seventh day, to walk some on the ninth, and on the twelfth they go home.

Retroversion of the Uterus and Some Functional Neuroses.

Hysteria and neurasthenia are the result of defective education and training and to improper living rather than some malposition of the uterus, says Dr. Miriam Gardner in the N. Y. Med. Jour.

While in some cases retroversion doubtless aggravates neuroses already existing, the author does not think that it is the primary cause of the nervous unbalance found in so many ungoverned, selfish, self-willed hysterical women, who are unfitted to be a blessing to the world, but often are unwisely selected as wives and mothers.

In the treatment of these cases get them away from home as soon as possible when they will carry out the doctor's orders. Faradic electricity may be used to tone up the pelvic tissues, when the displacement is slight no local treatment is necessary but use the knee-chest position for five or ten minutes morning and evening, deep breathing and later on light gymnastics.

If too much stress is not placed upon the pelvic displacement and too little upon building up the general health the patient will improve rapidly; the author closes by endorsing Dercum's statement "that there is no *necessary* relation between neurasthenia and pelvic disease or between hysteria and pelvic disease even when the two affections coexist in the same case."

Menstruation into the Ovaries.

A very strange case of concealed menstruation is reported by Dr. A. Brothers in the Med. Record.

After going into the history of several theories in regard to menstruation, he concludes that normal menstruation only involves the mucous membranes of both tubes and uterus, and Dudley's repeated observation that free blood is regularly found in Douglas' cul-de-sac in laporatomy during menstruation, may be explained by the escape of the menstrual fluid through the fimbriated extremities into the peritoneal cavity.

Dr. Brothers' case was, age 39, married, two children, no miscarriages, had dysmenorrhea for several years, for the last five months once every four weeks she suffers pelvic cramps, she thinks she is going to be unwell but no show is seen and in three days she feels well again. A tumor was found in Douglas' cul-de-sac which was opened through the vagina allowing six or eight ounces of thick tarry, unclotted blood to escape. A second tumor, higher up, being found, an abdominal opening was required, half pint of the same kind of liquid was found. The sacs distented with cotton measured 2x3 and 2x2 inches, both consisted of ovarian sacs in which the parenchyma was entirely absent. Each one communicated by an artificial opening with the corresponding tube.

The conclusion was that it was "a case of primary menstruation into the ovaries," as such bleeding may take place as well into the ovaries as into the nose or rectum.

Hernia of the Vermiform Appendix.

Two cases of hernia are reported by Dr. L. L. Hill, in the Medical Record, in which the appendix played an important part.

The first case was a scrotal hernia of right side, 25 years standing, partly reducible, on operation the appendix, eight or ten inches in length, was found firmly adherent to the sac. The operation was completed by Bassini's method and the patient made a good recovery.

The second case was femoral, of three years standing, reducible; becoming strangulated an operation was necessary, and the appendix was found strangulated in the crural ring.

The constriction was so tight and the adhesions so great that Gimbernat's ligament had to be incised before the appendix could be set free.

The diseased part was removed, the stump cauterized with carbolic acid and pushed back into the abdomen. The patient made a good recovery.

Ovarian Multilocular Cystic Tumor of 35 Years Standing.

DeForest Williard and S. M. Wilson, in the University Medical Magazine for August, report the case of a woman dying at the age of 74 of influenzal bronchitis who had an ovarian cystic tumor for the last 35 years of her life.

Only palliative treatment had been used and she was able to be up and about most of the time and did light housework.

Tapping was done at intervals varying from eight to twenty months. and two or more large bucketfuls of greenish yellow fluid withdrawn. The history of ovarian

tumors for the past 35 years is reviewed, showing how unpopular the operation was and why it could not be urged more successfully.

The autopsy showed that the tumor had sprung originally from the left ovary, the uterus was atrophied but not involved in the mass, which was thoroughly incorporated with the abdominal wall, the parietal peritoneum being practically abolished. Folds of the small intestines formed a portion of the tumor.

Removal at any time during the last twenty years of her life would have been impossible without removing a large portion of the abdominal wall and of the intestines.

Typhlitis and Perityphlitis.

We have been calling everything that was at all puffy and painful on the right side of the abdomen, appendicitis, that it is refreshing to see our old friends *Typhlitis* and *Perityphlitis* at the head of an article by Dr. John A. Mitchell in the Medical Monograph. He says that typhlitis is rare without perityphlitis, that the latter term may be even superfluous, also that typhlitis is rare without accompaning appendicitis.

However appendicitis without typhlitis is common.

Dr. Mitchell discusses the anatomy of the parts involved and the wonder is that there is not more trouble in this region.

He says in regard to the diagnosis that it should be determined whether there is an acute, recurring, a chronic or relapsing inflammation.

Sudden pain, tenderness, elevation of temperature, indicate an acute attack and if the symptoms are intense with retraction, rigidity and circumscribed resistance, perforation is imminent.

We must eliminate renal colic, biliary colic, ovarian disturbance, intestinal obstruction, and typhoid fever.

To distinguish typhlitis from appendicitis is not easy or important. Impaction with obstinate constipation and slight fever would indicate cecal inflammation. For treatment, the author thinks the first thing is to relieve pain as there is no good reason to do otherwice. Hot or cold applications, codeia or morphia hypo. He says that an opiate is an antiphlogistic as well as an anodyne and antispasmodic.

Pain being relieved, calomel is the only permissible cathartic and laxative, 1-10 to ¼ gr. doses. High enema of hot water, glycerine and turpentine,

Be very gentle with your hands over the inflamed area.

No solid food. Alcoholic stimulants if nessary.

Smith's rule is quoted as being worth following, "operations should be performed as soon as the patient is palpably drifting into a condition in which the chances of a recovery after an operation are rapidly diminishing."

Vesical Calculus in Children.

A supra-pubic operation for stone in a male child, age 5 years, is reported by Dr. J. Ford Thompson in the National Medical Review. The size of the stone having been accurately determined by bi-manual manipulation with one finger in the rectum, it was thought too large for safe operation by the perineal route.

No rectal bag was used, the bladder was washed out and two ounces of boracic fluid was introduced as much as the bladder would hold, the bladder was caught with two sharp hooks on either side of the median line and opened.

The bladder wall was not sutured nor was it fastened to the parietal fascia; a drainage tube was put in for 24 hours, then dressed with sufficient gauze to take up the urine. The only sutures used in the case were two in the upper part of the abdominal wound.

Stone was uric acid, weight 180 grains, length 3 cm., width 2.3 cm., thickness 2cm.

Reflex Nervous Disorders in Children.

Reflex action is defined by Dr. D. N. Kinsman, in the Columbus Med. Journal, as the conversion of sensation into motion without volition, the spinal cord and the medulla being the centers for reflex action. The brain inhibits reflex action through the pyramidal fasciculi which are the path for voluntary impulses.

In the child the inhibitory power of the brain over the cord and medulla is weak and can only be made strong and stable by muscular education. The statement is made that a child who grasps a hot poker is more severely burned than an adult because the child cannot inhibit its muscular act as suddenly as the adult. Blisters and other cutaneous traumatisms, infectious diseases. phimosis, dentition when the gums are badly treated may cause convulsions in children. Nervous irritations may persist as "habit neuroses."

Reflexes may occur through the slanchnic nerves by infections, poisons and irritating substances in the stomach. In such cases attention to the alimentary canal will relieve all the unpleasant symptoms.

Suppurative Inflammation of the Female Pelvic and Abdominal Cellular Tissue.

For the special benefit of those who do not believe in pelvic cellulitis, Dr. J. Wesley Bovee reports a case, in the National Medical Review, that was plainly a case of post abortion infection that spread laterally on both sides of the uterus, dissecting to the right perirenal tissues and thence across the abdomen in front of the peritoneum, which it never invaded.

He admits that these cases that spread from the uterus or the vagina by routes other than the continuity of the mucosa are only perhaps ten per cent. of the cases, but to say that they never occur is to deny the function of the lymphatics of the pelvic cellular tissue and of the veins of the broad ligament.

The reported case was 30 years of age, operated on seven weeks after an abortion. The abscess was opened through the loin, it extended from the right iliac fossa to the posterior surface of the kidney and extra peritoneally across the abdomen nearly to the sigmoid. Later an openiug was made through the bottom of the abscess cavity in front of the broad ligament into the vagina. Patient made a complete recovery.

Dr. Bovee says that the fecal odor so often found in collections of pus in proximity to the lower bowel does not necessarily indicate a connection with the bowel contents. In this case the urine had the same fecal odor which persisted for a few days after the operation.

Typho-Malarial Fever.

The discussion in regard to the existence or non-existence of typho-malarial fever will, in all probability, go on for some time before a definite settlement of the question is made.

A valuable addition to the affirmative side of this discussion is made by Dr. G. A. Smith in the Medical Standard.

Dr. Smith was Brigade Surgeon to the second division of the third army corps at Chickamauga Park last summer, and had an excellent opportunity to study the matter.

The diagnosis of typho-malarial fever was entered upon a number of transfer slips that went forward to the Surgeon-General's office at Washington, they were promptly "returned for a proper diagnosis." In the meantime an expert microscopist and bacteriologist was sent to the hospital direct from the Surgeon-General's office, he found in the same patient both the typhoid bacillus and the plasmodium of malaria, and after his report went in no more slips were returned for correction.

Dr. Smith says the mortality is reduced rather than increased because the two poisons, in a measure, antagonize each other; it is not a hybrid disease caused by a specific poison, nor the result of a specific poison producing a distinct disease simulating both malaria and typhoid, but a true combination of both diseases.

He states that it commences more abruptly than typhoid, without prodromata, headache and vomiting present, greenish diarrhea and tonsillitis. All mucous surfaces are in a congested state and we have nasal as well as intestinal catarrh.

The temperature has a wider range than in typhoid, its elevations being sudden and higher. Post-mortem examination showed ulcerations in the intestines, but not confined to Peyer's patches, but could be found in any part of the alimentary canal.

Quinine, in one daily dose of 30 grains, gradually decreased each day, and ergot gave the best result so far as the malarial element was concerned.

In one week the malarial complication was broken up, then the usual remedies for typhoid concluded the case.

Extensive Fracture of the Skull With Recovery.

Dr. Leonard D. White, in the Vermont Medical Monthly, reports the case of a boy 14 years of age, struck by a base ball rather warm from the bat, which touched the head at a point three inches above and back of the ear on the parietal bone near the occipito—temporal angle.

The operation was performed the following day, the extent of the injury being much more considerable than was anticipated, as there were five lines of fracture and one piece of loose bone.

When the "button" was removed the dura pointed and on opening discharged about six drachms of jelly-like brain substance and about as much more serum and clotted blood.

The dura, periosteum and scalp were sutured separately with cat-gut, recovery rapid and uninterrupted.

The author mentions as the difficult thing the sewing of dura mater.

This is especially hard for a beginner in surgery and he suggests the following practice that will make perfect:

Take a hen's gizzard, empty it carefully, tack the edges around a hole trephined through a cigar box, nail on the cover, fasten the box to a table, then cut a long gash in the wall of the gizzard through the round hole and sew it up. Do this several times and you will be prepared for something more important.

Quinine in Malarial Hemoglobinuria.

The fact that quinine is the one remedy in malaria, whether urine is bloody looking or not, is brought out by Dr. S. L. J. Steggall in Medical Record.

He reports three cases of malarial hemoglobinuria in which quinine was given with most decided curative effect. He calls attention to the fact that such cases usually have chronic malaria and have been in the habit of taking quinine and so if we desire the good effect in such cases large doses must be administered.

Forty grains hypo was the usual dose, given with all antiseptic precautions, the solution used was in twenty-five per cent. solution of acid hydrobromate of quinine. The effect on the temperature and further course of the disease was marked.

As soon as the patient's stomach recovered somewhat, iron and arsenic are given, saline diuretics are used to flush out the kidneys, the liver must be kept active.

Intestinal Obstruction Following Abdominal Section.

Dr. John B. Deaver, in a paper on this subject, reported in the Cleveland Journal of Medicine, calls attention to the fact that intestinal obstruction may follow abdominal section either immediately or remotely.

He mentions as the causes, the attachment of the intestine to a fixed surface which has been denuded of peritoneum, or to the stump left after removal of the ovaries and tubes or the appendix.

Any denuded surface may become the point of attachment for the free border of the gut, kinking and acute flexion follow- and there is obstuction.

The bowel may become adhered to a neighboring coil, or there may be bands of adhesions from one place to another, or the bowel may even be included in a ligature, but Dr. Deaver does not report any of the latter class among his cases.

In regard to the diagnosis, he says there is only one condition to differentiate from, that is post-operative paresis or septic peritonitis with distention. In such cases there is early appearance of the symptoms, elevated temperature, vomiting, rapid running pulse and cold, clammy skin.

In true obstruction the onset is sudden with shock, absolute constipation, no passage of flatus.

He does not think much of indican in the urine as a help in diagnosis.

Of course, the treatment is to reopen to abdomen and seek for the obstruction.

Dr. Deaver's plan is to pull out the small intestines, covering with large pieces of warm guaze until the lesion is reached, when they should all be replaced except the part at fault.

In some cases he advises to incise the bowel at one or two points, wash it out and sew up, strong solution of salts thrown into the bowel at the point of incision while doing no harm did not seem very useful. After the first twenty-four hours an operation does not promise much. He emphasizes the importance of trying to prevent these conditions, no raw surfaces should be left uncovered by peritoneum, unnecessary manipulations should be avoided, no solutions except normal salt or distilled water should be used on the peritoneum, trim adhesion close to the peritoneum, use gauze carefully and with understanding and, of course, care will avoid including the bowel in a ligature.

Typhoid Infection Without Intestinal Lesion.

Dr. August Jerome Lartigau reports two cases of typhoid infection without any intestinal lesions in the New York Medical Journal.

This has been a doubtful condition to some of us, but as the accuracy in the methods of study become progressively better, the results are more convincing.

The first case was male, age 51, taken ill with acute pain in the head, back, chest, and limbs, cough followed with shortness of breath, death about the end of the third week.

A profuse pure growth of the *bacillus pyocyaneus* was gotten from the brochopneumonia, the plates from the liver, gall, bladder, kidney, and urine all contained a single organism morphologically similar in all the cultures, in hanging-drop preparations the bacilli were actively motile.

By Pitfield's method the flagella, (10 to 12) were well brought out with the characteristic peritrichal arrangement, a positive Widal reaction was obtained with sera from three cases of known typhoid.

The second case was female, age 31, married, sick five weeks when admitted, diagnosis made of ectopic pregnancy, abdominal section, removal of left tube and ovary with gestation sac, death on the third day, cultures from the lung, operation wound and peritoneal cavity remained sterile, from the heart's blood and spleen a pure growth of an oval or elongated coccus corresponding to the *diplococcus lanceolatus*.

Cultures from the uterus contained two sets of colonies, thick bacilli in hanging drop preparation were motile, Pitfield's

method showed flagella with peritrichal arrangement, positive Widal reaction was also secured. Pure growth of the bacilli were also obtained from the liver, gall, bladder and kidney.

The coccus associated in the uterus was indentifled as the *streptococcus pyogenes.*

The Treatment of Nervous Diseases.

Dr. Henry Campbell, in Treatment, divides the treatment of nervous diseases into three parts, by drugs, by the correction of bad habits, by the removal of peripheral irritation. His four drugs are iodide of potash, quinine, chloride of ammonia and the bromides, the dosage is important, 60 grains of the iodide is his usual dose three or four times daily, the chloride of ammonia is given in 30 grain doses every hour for neuralgia of the fifth nerve. His favorite prescription is:

Am. chloride, gr. 30.
Tinc. gelsem, ♏. 7½.
Tinc. aconit, ♏. 1.
Ex. glycyrrh. liq. ʒi.

Every hour for three doses when the pain comes on.

Nux vomica, 7½ drops, is the best remedy to give with the bromide to counteract its depressing effect.

The habit of the patient in regard to tea, coffee, tobacco, alcohol, and sexual indulgence should be inquired into and if possible corrected.

For peripheral irritations we should examine the scalp, the eyes, the naso-pharygeal space, the teeth, the ears, the digestive organs and the reproductive system.

The Etiology and Treatment of Phthsis.

Dr. Geo. D. Barney, in the New York Medical Journal, states two important factors in the causation of phitisis to be, the presence of the tubercle bacilli within the cell tissue, the resisting power of the organism to its growth. As conditions of cure he mentions, the absence of hereditary predisposition, the early recognition of the disease, the resisting power of the organism, the organic state of the patient, the early occurrence of hemoptysis, a natural tendency to a fibrous rather than a caseous metamorphosis of exuded products.

The author mentions two plans of treatment, the latter of which he advocates, by attacking the tubercle bacilli within the organism, thus to weaken and destroy or by promoting the general nutrition. He says that the features of consumptive resorts are greatly overestimated and dangerous and singles out Asheville, N. C., as illustrating the point. The only objection he urges against the resort is, that patients do not consult a physician after coming and that they expectorate all about on the sidewalks.

Dr. Barney has lived in Asheville, but not long enough to find out that no spitting on the streets is allowed, and that if a patient does not consult a physician on coming to a health resort, it is the fault of the patient and not of the place.

He believes in the morning sponge bath with the feet in warm water, woolen underwear the year round but of different weights. He is strongly opposed to the isolation of consumptives and with good reasons.

In hemorrhage, if at all profuse, he is in favor of the ice-bag without delay.

Guaiacol is highly recommended as a germicide, to repair tissue waste and to increase the red blood-corpucles and hemaglobin.

Some Fallacies in the Modern Treatment of Nose and Throat Diseases.

In a paper read before the Georgia Medical Association and published in the Medical News, Dr. Dunbar Roy has a word to say in regard to the specialist in nose and throat diseases. He is opposed to the idea that a fellow can know all about the eye or nose and nothing at all about the rest of the body. A man must be a general practitioner before he can be a successful specialist. The routine spraying out of the nose with oils is condemned; it oftentimes produces the "spraying habit" in the patient.

A watery solution should be used always to cleanse the nose, and the oily spray only when indicated.

The abuse of the electro-cautery is mentioned as in attempting to cure a false hypertrophy or congestion of the turbinate membrane by its use when the passive congestion or stasis is due to a cause somewhere else in the body. The too extensive use of this instrument may cause a dente band of cicatricial tissue to extend clear across the lumen of the nasal cavity and thus act as a barrier to free respiration.

Another error is the too frequent removal of cartilaginous and bony spurs from the nasal septum. Most of us want to take them off on all occasions, but we are assured that a resulting scar is often more troublesome to the patient than the original spur.

The paper closes with emphasis on a careful study of every case, its history and symptoms, and do not be too quick to jump at a diagnosis, and for heaven's sake don't be too lazy to examine a patient thoroughly for therein is the secret of real specialism.

The Non-Operative Treatment of Appendicitis.

Dr. J. H. Carstes, in the New York Medical Journal shows how we may have a severe case of appendicitis with pus formation and yet end in recovery without an operation. He thinks, anyway, that the question of appendicitis is largely one concerning the anatomy of the part, so long as feces can get in and out all is well, but when they can get in but not out, then we have appendicitis.

He shows how the appendix may become adherent to the cecum for its entire length and the rupture of the pus sac occurs into the bowel and the patient gets well.

These cases are bad for those who must suffer with appendicitis afterwards in the same neighborhood, as they serve to discourage surgical interference in somewhat similar cases, the patient waits thinking that ne can get well without an operation, but his sac bursts into the peritoneal cavity, the operation, long deferred, is done hastily, but the patient dies of general septic peritonitis.

While it is well to remember that such cases do occur, we should also impress their rarity upon our patient who may be hugging the delusion and tell him plainly how slim are his chances compared with an early operation.

Cerebral Abscess in a Child Three Months Old.

A case of cerebral abscess in a child three months old complicated by erysipelas of the head and face, is reported by Dr. William J. Doyle in the New York Medical Journal.

When first seen the child was only cross and irritable, some intestinal disorder, pupils seemed normal.

Three days later a large swelling appeared on the top of the child's head, contracted pupils, temperature 104.5, the swelling extended half an inch beyond the border of the anterior fontanelle, fluctuation present. An incision one inch in length was made about 1-4 inch to the right of the median line, the dura was tough and resisting, the longitudinal sinus was accidently opened and the operation was discontinued for forty-eight hours, the dressings and packing being removed no further hemorrhage was encountered, no pus, temperature 101, the following day as the packing was removed it was found saturated with a foul greenish discharge which welled up from the bottom of the wound, in quantity about 3 or 4 drachms, wound washed with bichloride (1 to 5000), healed without further trouble except very mild attack of erysipelas on the head and face.

The child had not been sick previously, no ear trouble, no syphilitic taint, no remote probable cause.

Fumigation of Apartments Occupied by Tuberculous Patients.

This important matter should be looked into very closely, and Dr. Charles F. McGahan, in New York Medical Journal, thinks it should be under municipal control at all health resorts. In most of the large cities it is the law now, but at many of our health resorts it is either not done at all or only done in a very superficial way.

Dr. McGahan states that we are very careful about our patients at home in regard to contamination and self-inoculation and that we should be equally so when they go away for the summer or for the winter.

He believes that every room offered for rent at a resort frequented by tuberculous patients should have a certificate attached, stating that it has been thoroughly disinfected and inspected under the auspices of the board of health or sanitary inspector.

Further, the local health authorities should stop expectoration on the streets and in the parks, regulate the laundrying of clothes of tuberculous patients, as they should be washed apart from those of healthy people.

Nephrectomy.

A report of nine cases of nephrectomy is made by Dr. Chas. P. Noble in Penn. Med. Journal for August.

Five cases were tubercular, one was for a ureteral fistula, two were for stone in the kidney, and one for what proved to be adeno-carcinoma of the upper half of the kidney.

The importance of complete ureteral examination is emphasized, they should be catheterized in every case as the operator should know whether or not the patient has one sound kidney or not. We can be more deliberate in our operating if we are sure that one kidney is sound.

The abdominal route was chosen, where the suppurating tumor was large and where there was a suppurating sinus in the loin.

Three of the cases operated on for tubercular kidney made complete recoveries, one recovering with a fistula.

In regard to the uretral fistula case, the author states that a nephrectomy is prefer able to an implantation into the bowel whenever it is too short to reach the bladder.

Kelly's suggestion that such a ureter might be implanted into its fellow if the

opposite side was not thought practicable in this case.

The two cases of stone showed that these cases should be operated on early when it is possible that the kidney can be saved, of course to wait until the organ is riddled with abscesses we can do nothing more than take it away.

"The risk of an exploratory operation by the lumbar incision is so slight, that exploration is demanded in all cases in which the symptoms or urinary examinations indicate that either the patient's general health is being injured or the integrity of the kidney is threatened by the presence of a stone."

If the stone is found all is well, if not no harm has been done and the symptoms will likely be relieved by the operation.

Occlusion of the Uterine Cervix.

Dr. L. C. McElwee, in the Clinical Reporter, reports a case of this exceedingly rare condition.

He was called to assist in repairing a lacerated cervix and perineum as the case had not menstruated since the birth of her child two years previously.

When examined under anesthesia it was found that the cervix was entirely closed, and evidently had been for some time. The already lacerated cervix was slit up into the body of the uterus and a small rubber drainage tube was used to keep the canal open as it healed. The perineum was reconstructed after Kelly's method.

Healing progressed nicely, as at the end of two weeks new threads or anchors were put in the drainage tube to keep it in place. This tube was kept in the cervix for several weeks requiring considerable attention.

Menstruation returned in a short while, scanty at first, but now practically normal.

The parents were both anxious for other children, but nothing had shown up at the time of the report.

Yellow Fever Serum.

Doty, in the Medical Record for August 26th, reports a case treated with yellow fever serum, the first case treated here.

One hundred c.c. of the serum was given in three doses subcutaneously. Twenty-five c.c. was given at the first dose, three hours later 25 c.c., and five hours later 50 c.c. A 25 c.c. antitoxin syringe was used.

The temperature when the first dose was given was 103½, the next day it was 102½, 3d day 101, 4th day 100, 5th day 101, 6th 100, 7th day 99½, and normal thereafter or practically so.

Besides the serum no medicines were given at all, except whiskey and during convalescence a tonic containing strychnine. Warm salt water was given per rectum to assist the kidneys.

The nervous symptoms were practically terminated the second day after the serum was used, the amount of urine was increased and while the report of one case is not sufficient to establish the real worth of serum in this disease, still it has a very favorable indication.

The experimental strength of the serum used in the above case was such that 10 c.c. injected into a guinea-pig ten hours before inoculation with a fatal dose of a living culture of the Bacillus icteroides, prevented death. To cure guinea-pigs inoculated previously 14 c.c. of the serum was necessary.

A New Hospital for Consumptives.

Tyson, in the University Medical Magazine for August, gives the history and the hopes of a hospital for consumptives in Philadelphia.

This hospital was first opened at 22d and Pine in 1892, but the locality being soon overcrowded, it was moved out on the Schuylkill and enlarged.

The first building could only accommodate 14 patients, now there are 40 beds and additions are being planned.

As Dr. Tyson states, the need of a special hospital is very great, inasmuch as the general hospitals do not care to take such cases, in fact most of them refuse them outright.

He gives the number of persons who died in Philadelphia from consumption in 1896 as 2514, in 1897 2388, in 1898 2590, and yet there are only one hundred and twelve hospital beds available in the whole city.

The educational results of a hospital for consumptives is very great apart from the actual aid and help in the proper treatment of those afflicted; for where there are well equipped hospitals, the home treatment of such cases is stimulated and the entire family of consumptives is helped.

Puerperal Insanity.

The cause, symptoms and treatment of puerperal insanity is discussed by Dr. Anna Burnet in the Woman's Medical Journal for August.

As to etiology she mentions heredity, worry, age, sudden suppression of the milk, or of the lochia, laceration, mastitis, metritis and septic infection.

The disease is one of irritation rather than of inflammation, and is analogous to delirium tremens.

Most of the cases develop in the first six weeks after confinement.

Symptoms are, indifference on the part of the mother towards her child, eyes bright, restless, sleepless, active, loquacious, noisy. She becomes suspicious, threatens, resistive, violent, aggressive—is by turns joyous, scolding, irritable and quite incoherent. Pulse is small, no temperature unless infection, the tongue and lips become dry and the teeth covered with sordes, refuses food and water. No peculiar tendency to lewdness.

The treatment is comprehended in food and rest. Food may be given by nasal or stomach tube, egg-nogg the best food, if necessary lavage can be used for the stomach condition; wine or brandy may be added to the food.

Cathartics should be given when indicated.

For rest, a warm bath with cold to the head is good; if temperature is high cold pack with heat to the feet. Sulphonal, trional, paraldehyde and chloral last of all as a hypnotic.

Exercise, fresh air, diversions, as soon as the patient can bear them.

Gunshot Wounds of the Chest in the Spanish-American War.

A report of 24 cases of gun-shot wounds of the chest, is made by Greenleaf in the N. Y. Medical Journal, of which fifteen recovered without complication, three had hemothorax without suppuration, six had hemothorax that finally developed pus and required operative interference, one of the latter six had peritonitis with a fatal termination.

Dr. Greenleaf states that the wounded had to be carried in ambulances over roads that baffle description, and this moving was done some eight or ten days after receiving the injury.

While in the division hospital they were very poorly sheltered, being subjected to very severe weather, conditions that would favor hemorrhage and infection, the two main indications for treatment.

In three of the cases the blood in the pleura was absorbed without becoming infected, and in the others the breaking down of the blood to form pus was a late complication. The wounds of entrance and exit healed nicely in all the cases except one.

The cause of infection of the blood in the pleura was not the bullet directly, but micro-organisms from the wounded lung, in one case the empyema did not show until after the 19th day and was on the side opposite to the wound of entrance.

The Urine in the Diagnosis and Prognosis of Non-Urinary Diseases.

Some points of utility of examination of the urine are brought out by Hill, in the Denver Medical Times, based upon the chemic and microscopic examination of over 6,000 urines.

In specific infections, during the febrile stage of fevers, it is diminished in quantity, highly acid, specific gravity increased, chlorides and phosphates diminished except in spotted fever. Pigmentation and hemoglobinuria are both specific. Albuminuria occurs in the majority of fevers. The special color test, Ehrlick's reaction is of equal value to Widal's reaction.

Chemic and microscopic changes occur in the urine from hemic and circulatory disorders, in respiratory diseases, in gastro-intestinal disorders, in hepatic and pancreatic lesions, in osseous, articular and constitutional diseases, in nervous and skin affections, in surgical disorders and in poisoning.

In pneumonia if albumen is present the mortality is three times as great as in those who have no albumen. Internal pus formation in any part of the body is indicated by albumosuria. A considerable relative increase of urinary nitrogen over phosphoric oxide is said to be a sign of malignancy.

The Pathology and Etiology of Rheumatism with Some Remarks on Treatment.

The specific cause of rheumatism is not yet discovered; however, Dr. Cuvier R. Marshall, in the New York Medical Journal, attempts to throw some light upon the subject.

The lactic acid theory is accounted more a predisposing than an exciting cause.

Reinhard's theory that it is an infectious disease is mentioned along with Mordhorst s urate spherules and needles, while the opinions of Satterlee and Haig that it is due to the presence in the blood of elements resulting from nitrogenous tissue metabolism received only passing notice.

The writer think the following facts bear more directly on the etiology, that the disease follows chilling of the surface of the body whereby the normal acid secretion of the skin is checked or suppressed, reduction of the alkalinity of the blood follows and nutrition is inhibited by diminished oxidation. Reduced alkalinity of the blood may also follow the ingestion of very acid foods. Defective oxidation is generally observed in warm, damp climates.

The treatment advocated is the salicylates of the alkalies, the one or two minor objections not worthy of consideration.

With the salicylates pain is relieved, temperature controlled, tendency to endocarditis checked and arthritic inflammation alleviated.

He recommends 15 to 20 grains of the pure salicylate of sodium every 2 hours in carbonated water if the stomach is irritable. Salicylic acid ointment may also be used, the following formula being given:

Acid salicylic.
Al. terbebin.
Adip. lanæ hydrosi a. a. ʒss.
Adip. q. s. ad. ʒii.

This ointment is spread on lint and applied to joint with oiled silk and a soft bandage.

The following solution of Arendt is also recommended for joint swellings and odosities:

Acid salicylici gr. c.c.c.
Spiritus vin. rectif, ʒiii.
Ol. ricini, ʒvi.

Link is soaked in this mixture and applied. The continuous use of the salicylates for some time is urged to avoid relapse.

Calomel.

Funck, in Cinn. Lancet-Clinic, makes a plea for calomel in certain diseases characterized by retained tissue waste and toxines.

He says that it is a king and giant among remedies, being unique in its own peculiar action and irreplaceable by any other as a sedative eliminant.

In acute zymotic diseases, typhoid, the exanthemata, especially malignant scarlet fever, puerperal fever, diphtheria, cholera infantum, cholera, tropical remittents, meningitis, carbuncles, erysipelas, etc., the peculiar action of calomel as a glandular stimulant is called for to aid the system in throwing off the toxines and waste products of the body.

Dr. Funck claims that calomel should not be given as an occasional purgative or as an anti-emetic, but as a sedative stimulant, somewhat like antimony, as it relaxes the glands and favors secretion.

He suggests that one cause of the failure to use this agent properly is that we erroneously take its action in health to be the same as its therapeutical action in disease, as they are entirely different.

He terms the treatment of zymotic diseases without attention to the glandular secretions, as folly and altogether irrational.

He recommends fractional doses either with or without ipecac given hourly in cholera infantum.

With proper care salivation will never occur.

Conservative Pelvic Surgery,

Pelvic surgery, even by specialists, is setting down upon a firm basis of reason and common sense.

Eastman, in the Medical and Surgical Monitor, writing on Conservative Pelvic Surgery, says that he has had twenty successful operations during the past year in which he was able to save portions of the ovaries and tubes with the very best results.

He mentions the following rules as constituting the working basis for conservatism in pelvic operations: An ovary should not be removed simply because the tube of its side has been taken out. Wherever it is possible in cases of parovarian cyst, the ovary should be left. In cases of adherent ovary every effort should be to so relieve its adhesion as not to tear it out from its insertion in the broad ligament, with a view of leaving it intact. So-called Graafian cysts may be punctured with knife or scissors or by cautery. Hematomata may often be dissected out when they do not involve too much of the ovarian tissue. Dermoid cysts of the ovary, ovarian cystomata and ovarian abscesses may frequently be so manipulated as to preserve the functions of the ovary. Adherent tubes may be released, strictured ones opened and tubal abscesses drained. The author recognizes circumstances when the most radical surgery is demanded, and for such cases it must be done.

Good sound judgment is very necessary in the gynecological surgeon.

Dr. Eastman thinks the administration of the animal extracts such as thyroid glands to be very useful in ameliorating many of the psychic symptoms following the complete removal of the ovaries.

The Nature of the Xanthomata.

Some important and valuable suggestions in regard to these obscure forms of skin tumors are made by Dr. S. Pollitzer, in the New York Medical Journal.

He is of the opinion that xanthoma diabeticorum and xanthoma multiplex are identical, the difference noticed being one of degree rather than of kind.

Generalized xanthoma is temporary, while eyelid xanthoma is persistent. The author then goes fully into the histology of these tumors in which he shows very plainly the reason for his views, that the so-called xanthoma cell in xanthoma planum is a degenerated muscle fibre, so that we are no longer compelled to accept Unna's unreasonable explanation of these cells.

Dr. Pollitzer supports his demonstration of the myogenetic origin by noticing the

following points in the disease : The absence of any clinical signs of tumor, its almost exclusive occurrence on the face where peculiar muscular conditions prevail, its common arrangement in elongated plaques whose longest axis is parallel to the course of the orbicularis fibres, its heredity, its usual development after middle life when degeneration processes are apt to occur, the peculiar yellow pigment which is always found in mucles undergoing fatty degeneration.

The author sums up his paper as follows : Xanthoma palpebrarum vulgare is not a neoplasm ; it is the product of the degeneration of embryonically misplaced muscle fibres, it bears to histological relationship whatever to xanthoma tuberosum disseminatum, the common xanthoma tuberosum and xanthoma diabeticorum are similar processes, they are both connective tissue neoplasm in which the relative proportion of fibrous tissue and connective tissue cells varies in different cases, in both the cells undergo a fatty degeneration, resulting in the destruction of the cells and ultimately in the more or less complete disapparance of the nodule. The process is more diffuse and the degeneration more rapid in the diabetic form. Generalized xanthoma is an irritative process whose cause must be sought in some systemic disturbance.

The Yellow Fever Bacillus.

The yellow fever germ is causing a good deal of writing and explaining on the part of Surgeon-General Sternberg and yellow fever Sanarelli.

In the Medical News for August 19th, Dr. Sternburg replies to Sanarelli accusation that Sternberg thought yellow fever a localized infection with its seat in the stomach or in the intestines and that it was closely related to Asiatic cholera, and further, that Sternberg was not willing to yield to the evidence in favor of the specific etiological role of Sanarelli bacillus.

The Surgeon-General in a very logical and forcible manner replies to these charges, showing that Sanarelli was entirely wrong in regard to the stomach and intestine idea and that the reason why he could not accept Sanarelli's bacillus as the specific cause of yellow fever was that the evidence was not sufficiently convincing.

Sternberg thinks that Sanarelli's bacillus is a variety of the bacillus of hog cholera. His opinion is based upon the researches of Reed and Carroll at the Army Medical Museum for the past two years.

He says further, tha Sanarelli's bacillus is a pathogenic saprophyte which is present occasionally and accidentally in the blood and tissues of yellow fever patients, but its etiological relations to the disease has not been established.

Dr. Lacerda, of Rio de Janeiro, writes Dr. Sternberg, that the serum of Sanarelli has failed in Brazil, that it is neither preventative nor curative.

Dr. Archinard also reports negative results with the serum in ten cases, none of the important and dangerous symptoms of the disease being in any way mitigated or prevented by its administration. Sanarelli will doubtless find the time to reply in the near future.

Bright's Disease.

Acute and chronic Bright's disease are very thoroughly gone over by Walter Sands Mills in the Medical Record.

After noting a few points in the history of the disease, it is defined as being "any disease of the kidneys marked by the persistent presence of albumin in the urine and attended by disintegration and wasting of the organ."

As to its origin the author inclines to Semmola's views and believes they are correct, that the blood always first becomes deteriorated so as to contain an increased amount of albumin.

The three symptoms associated with all forms of Bright's disease are : albuminuria, dropsy, uremia.

Cohnheim's theory that the presence of albumin in the urine is due to changes in the epithelium of the glomeruli is accepted. The dropsy is due to changes in the walls of the blood vessels, and the uremia is due to some abnormal product of disordered metabolism.

Acute Bright's disease may follow the acute infectious diseases, particularly scarlet fever, exposure to damp and cold, pregnancy, certain poisons, extensive burns.

The treatment recommended is milk diet, uniform temperature of room, large quantities of pure water, diaphoretics as dry heat, hot-air bath or hot pack.

Cathartics, pilocarpine if coma is impending, morphine, chloroform, in delirium hyoscyamus.

Infusion apocynum for edema, 10 to 15 drops every hour, if only of the lungs apis mellifica, 1-100 preparation half drop dose every half hour. Arsenic should be pushed until its physiological effects are produced. Later operative measures by tapping or puncture of the skin under strict antiseptic precautions.

Aconite in minute doses frequently repeated is good for the hyperemia, cantharides, bichloride of mercury, cactus grandiflorus. For the anemia, iron, cod-liver oil, and oxygen.

Chronic Bright's disease differs very little from the acute form, the changes only take place slower.

The constant changes are vascular that may be simple hypertrophy, or valvular disease, and ocular causing impaired vision.

The treatment of the chronic form is not at all favorable as cures are exceedingly rare. Avoid catching cold, woollen next the skin at all times night and day.

The author favors a liberal diet, red meat once a day. Chicken, eggs, fish, vegetables, fruit, milk, tea and coffee may be used.

Stop alcoholics, iodide of potash if history of syphilis, bichloride of mercury one of the best remedies in the chronic form, lead is also a good remedy. As the heart gives down, caffeine better than digitalis, strychnine but it should not be used too long, camphor in drop doses repeated every five minutes in threatened heart failure, brandy or ether hypo.

Codeine best for sleeplessness, one-eighth grain dose, the bromides and chloral objectionable, trional in fifteen grain dose may produce sleep when there is no physical pain.

Unscientific Commercialism Contrary to Ethics and Good Manners.

Law, Religion, Government and Economics are somewhat compared in their methods and manners with the science and art of medicine by Dr. Isaac N. Albright, in the Chicago Clinic.

He styles "money greatness," the disgrace and satire of our age, being the only requisite to social and political elevation.

Government, law and economics are in a stage corresponding to the incantation period of medicine.

Government by a creature, child or adult, called a King, by money interest or military power is bad enough, but government by injunction, he thinks, is a kind of boil or wart grown upon the old monster's back.

Law's idea of justice is simply death or further degredation to the offender; the church's idea of christianity is the furthest removed from Christ; economics a system by which everyone sitting at the world's table charges a toll for passing the bread to the next man.

With all this is compared the humanitarian principle of medicine, by which scourge and plague have been turned away; to small pox and cholera, saying thus far, but no farther.

The doings of some tin-pot soldier are exalted to the skies, no matter how reprehensible the cause in which he fights and in the same account may occur the most scandalous and pusillanimous attempt at disparagement of men of skill and scientific attainment. The military, the judges, the humbug parsons, have been nothing more than a woful load on the back of the already struggling human race.

Alcoholism and the Death Rate.

The prevalence of alcoholism and its influence on mortality was discussed by Dr. George W. Webster in a paper read before the Illinois State Medical Society, reported in the Quarterly Journal of Inebriety for July.

He states that the annual consumption in England, France, Germany and the United States is twenty-five gallons for every man, woman and child.

The English drink bill for 1898 was 772 million dollars, the United States for 1896, 934 million dollars.

Ten per cent. of the population are inebriates.

The influence on mortality is strikingly put by Kraft-Ebling as follows:

First Generation—Moral depravity, alcoholic excess.

Second Generation—Drink mania, attacks of insanity, general insanity, paralysis.

Third Generation—Hypochondria, melancholia, apathy and tendency to murder.

Fourth Generation—Imbecility, idiocy, and extinction of the race.

Ten families of drunkards are compared with ten temperate families. The direct progeny of the drunkards amounted to 57, 25 died of insufficient vitality in their first year, six were idiots, five dwarfed, five had hydrocephalous, hair-lip and club-foot.

Of the temperate families there were 61 children, 5 died of insufficient vitality, four had curable nervous affection, two had congenital defects, 81.9 per cent. were sound in mind and body during childhood and youth.

Alcohol acts by destroying congenital immunity, favors, by direct influence, the development of pathogenic micro-organisms, lessens the absolute strength of muscles, obtunds the delicacy of the special senses. The use of alcohol increases the liability to tuberculosis and pneumonia.

Cirrhosis of the liver, chronic nephritis, general arteriosclerosis and the non-in-

flammatory diseases of the heart are caused by alcohol.

Murder, suicide, death by violence and accidents are caused in most of the cases by alcohol.

It has caused more deaths in Chicago in the last three years than smallpox in the past forty-three years.

Ten per cent. of all deaths in England and Wales are due to alcohol.

The author concludes that to be successful in the fight against alcohol medical men can, more than any others, contribute substantial aid by calling the attention of medical men to this disease of contemporary humanity; by calling things by their right names and classifying and designating alcohol as a *narcotic*, not a *stimulant*, in their writing and speaking about it; by taking the necessary steps in the investigations of its effects, and then a concurrence of opinion in teaching, both publicly and privately, especially as to what constitutes an inebriate, and then his relationship as a diseased person towards the church, the law and the medical profession.

The Cause and Prevention of Uterine Cancer.

Grant, in the Denver Medical Times, believes that the cause of cancer is the infection by a distinct cancer parasite, but as predisposing causes, traumatism, old lacerations of the cervix, a well-to-do easy life.

He makes a strong plea for the early repair of all lacerations about the cervix, and as cancer is so much more frequent in women who have borne children we must concede a causal agency however remote to the lacerations of the cervix.

An early diagnosis is insisted upon, but acknowledgement is made of the great difficulty of so doing. Examination of the blood in the very early stages is not worth much.

He believes the disease, in its beginning, to be purely local and complete extirpation at this stage means cure.

We should be on the look out for anything suspicious about the uterus in a woman at or about the climacteric, always remembering that simple non-specific ulceration of the cervix is extremely rare.

Ureteral Anastomosis.

The relation of the ureters to the uterus especially its cervical portion make them very liable to injury in hysterectomy, further the ureters may be abnormal in their position and be included in a ligature which would otherwise be legitimate. But thanks to the genius of our modern surgeons, the patient is not necessarily lost if the ureter is cut or torn.

Dr. George H. Noble, of Atlanta, read a paper before the Southern Surgical and Gynecological Association at its last meeting in Memphis on Ureteral Anastomosis.

He divides the subject into anastomosis and implantation.

To Schop belongs the honor of the first successful operation of this kind in 1886; it was an end to end union with fine silk. Since that time several successful cases have been reported.

Dr. Noble thinks Van Hook's operation the safest and simplest, but a modified Robinson or a Bovee may be done with excellent results. In any operation the catheter is necessary to steady the delicate duct.

We must secure perfect coaptation or invagination, the ureteral artery must be preserved, and all strain and tension must be relieved. The first implantation was made by Baumm in 1892.

A well arranged table follows giving a list of 17 cases of implantation into the bladder, 14 successful, 1 of implantation into pelvis of kidney which was successful; 13 of anastomosis, all successful.

The Operative Treatment of Labor in Pelvic Deformity.

Dobbins after a critical review of one thousand cases delivered in the obstetrical department of the Johns Hopkins Hospital, reported in Obstetrics, comes to the following conclusions:

There was necessity for operative delivery in 46 out of 131 cases of contracted pelves, or 35.1 per cent. The rachitic and irregular pelves most frequently require operation.

The generally contracted pelvis is comparatively rarely deformed sufficiently to seriously obstruct labor, this pelvis is common in the negro.

When the degree of contraction is slight, or very marked, the indications are definite, hence easy to decide upon the proper treatment, but when there is only medium degree of contraction, there is a call for the exercise of greater skill and judgment.

Tentative application of the forceps, and this failing, immediate Cesarean section is the proper treatment for such cases. In general, forceps give a lower fetal mortality than version, but version is a safer operation when done primarily on a movable head in a slightly contracted pelvis, than a difficult high application of the forceps.

Only in very exceptional cases can symphysiotomy be compared with Cesarean sec-

tion, as the former operation not only causes qreater injury to the mother, but is always an uncertain procedure.

Complications are common in contracted pelves, among the commonest accidents during operations are premature rupture of the membranes and prolapse of the cord.

"Corrected morbidity" statistics can only be obtained by the bacteriological examination of the uterine lochia, for only in this way can we say definitely which infections are the result of the operation.

The Treatment of Eclampsia.

DeLee in Obstetrics recommends the following: Protect the patient from the vehemance of the convulsions by keeping her quiet in bed, surrounded by pillows, remove false teeth, have a gag near at hand.

Narcotize the woman, give one-fourth gr. morphia hypo. every half hour until three doses are taken; give 45 grains of chloral per rectum and repeat in two hours if necessary; chloroform should not be used unless the convulsions follow each other very rapidly or for operative purposes.

Bleed if the pulse is full and strong, flushed or cyanotic face and when the narcotics do not control.

Sub-cutaneous injection of normal saline solution, as its effect upon the kidneys is remarkable.

Termination of pregnancy, if the above means fail, the best method is, anesthesia, local asepsis, Barnes' bag in the cervix; be sure the patient is under anesthesia.

If labor has come on during the attack terminate the process as soon as possible, however, accouchement force should almost never be used.

Incisions into the cervix should be sparingly done unless the circular artery is out of the way, and this is only true when the upper part of the cervix is effaced and drawn up into the body of the uterus carrying the artery with it.

Delivery should be made by the forceps, version is not desirable in eclampsia, if the child is dead do craniotomy at once.

Repair any tears in the perineum or vagina, but let the cervix alone unless there be hemorrhage.

Do not tampon the uterus if it can be avoided.

Veratrum viride is not much thought of, but it may be used along with the other remedies.

As a prophylaxis, use milk diet and a great deal of water, stimulate the emunctories, woolen under-garments even in summer. Jaborandi is to be avoided on all occasions.

Glycosuria and Albuminuria in Their Functional Stages.

Most cases of Bright's disease and diabetes have an early stage in which they are more or less functional, and are not indicative of any kidney lesion, says Paulson in Modern Medicine.

He reports three cases, two of which were simply functional glycosuria, though the other was albuminuria from organic lesion.

The first two cases were entirely cured by a proper diet, and the third was very much improved until he returned to his old habits of eating.

Dr. Paulson mentions the close similarity existing between Bright's disease, diabetes, rheumatism and gout as pointed out by Haig, Bouchard and Boix. He maintains that they are largely caused by wrong habits of eating and drinking.

Bouchard is quoted as saying that we may have albuminuria from enlarged livers and also from dilated stomachs.

Flesh-foods, tea, coffee and tobacco are the wrong things to use, especially in excess, and to their immoderate use can be traced oftentimes, the head of the stream that sweeps the user into an untimely grave.

Infant Food and Feeding.

The usual causes of diarrhea in infants are, improper food and improper feeding, hot weather and bacteria says Dr. Theo. W. Peers, in Medical Monograph, and that all these causes may be operative in each case.

He mentions the fact that twice as many infants die in July as compared with any other month in the year and that six times as many cases occur from June to September as in the other eight months of the year.

Continuous heat is more effective in producing intestinal diseases as the bacteria develop most abundantly.

No one variety of bacteria has been shown to be the cause, but the symptoms would indicate a specific violent poison generated by the germs. These grow better on milk than any other medicine, and yet milk is the only proper food for infants until they have all of their milk teeth, so the job is to keep out the bacteria while we are putting in the milk. Boiling will render milk sterile, but, at the same time, hard to digest, and the bacteria of the intestines will soon multiply on the undigested food and cause trouble.

The author then turns to mother's milk as the only safe food, being at once sterile and digestible, but be careful about dirty nipples or the child sucking its dirty fingers.

The stomach in the child does not do

much digesting, being little more than a receptacle, its digestion occurring in the intestines.

Cow's milk is the next best, provided we dilute it properly, render it alkaline and add sugar. Be sure and dilute it enough.

The author's formula is—

Fresh milk,	6 oz.
Boiled water,	6 oz.
Lime water,	½ oz.
Cream,	3 teaspoonfuls.
Milk sugar,	4 "

for a child 3 to 9 months old.

See after the cow and the milker. Do not use the first milk drawn. Prepare it as soon after it comes from the cows as possiblef enough for 12 hours and keep as cool as possible. Warm to 110 deg. when given and never pour back any left from feeding.

Every case of indigestion in a baby should be looked after at once.

If the case be one of milk infection, stop milk for three days or even a week and give beef juice, Mellin's food, or grape juice.

On returning to milk diet modify as if for an infant one-half or one-third as old.

Epidemic Cerebro-Spinal Meningitis.

Dr. J. W. Porter, in the Western Medical Journal, reports seventy-three cases of cerebro-spinal meningitis occurring as an epidemic.

In ten of the cases there was positive indications of contignation. The initial chill was observed in 45 cases, of these 30 died.

Highest temperature was noted in 70 cases, subnormal in 3; 98 to 101 in 8; 101 to 102 in 15; 102 to 103 in 14; 103 to 104 in 15; 104 to 105 in 4; 105 to 106 in 4; 106 to 107 in 1; noted as high in 6. The higher the temperature the greater the mortality, though two out of the three, with subnormal temperature, died. The pulse was of no special interest.

Abnormal respiration in 47, general hyperesthesia in 38, spinal rigidity in 66, coma noted in 32, vertigo in 14, vomiting in 53.

Mortality rate 67⅓.

Treatment symptomatic. Opium was used for relief of pain.

Emergency Surgery.

Emergency surgery is the surgery of the general practitioner says Seen in the Pacific Medical Journal for August.

In accident cases the first aid rendered often determines the fate of the patient. He quotes the definition of Sir Spencer Wells that "a surgeon is a physician who can operate," and says that no man should practice surgery alone until he has been in the general practice of medicine for at least five years.

Physicians should take post-graduate courses in surgery, and surgeons should never give up the study of general medicine until they get too old to operate.

The suddenness of an emergency call, the excitement and oftentimes the crowd are calculated to wool-gather the young doctor only lately come to town, but the prompt and confident treatment of such cases has a certain and increasing reward.

Dr. Senn, of course, suggests the emergency bag kept always ready with a few instruments, ample dressing material, antiseptic tablets, reliable ligatures, anesthetics, stimulants, a small medicine case, a hypo., a good supply of rubber tubing and a Davidson syringe.

Intestinal Therapeutics.

During the hot sultry days of summer, intestinal diseases are common and oftentimes severe in character.

Dr. Barnard D. Eastman, in Med. Monograph, gives some valuable information in regard to the treatment of these cases.

First. Remove all noxious substances from the gastro-intestinal tract, using for this purpose rhubarb, castor oil, of the mild unirritating kind.

Second. Disinfect and restore proper function, with calomel, small doses, 1-10 gr., salicylic or carbolic acid, salol, salophen, zinc sulphocarbolate, copper arsenite, bismuth, eudoxin, etc., washing out the stomach, flushing out the colon, easily digested foods.

Third. Relieve pain and nervous irritability by paregoric in children, deodorized tincture of opium in adults, may be combined with a cathartic, compound tincture of opium, bromides, chloral, chloroform water, camphor.

Fourth. Equalize the circulation by using the warm bath, dry heat in some cases, inhalations of oxygen in extreme cases, water freely for the thirst no matter if vomiting continues, salt solution in the colon or into the cellular tissue, a heaping teaspoonful of salt in a quart of boiled water at 120 deg. F.

Fifth. Support the patient, in addition to some of the other things that have a supportive action already mentioned, may be added, rubbing with dilute whiskey, small doses of whiskey or aromatic spirits of ammonia, hypo. of strychnine.

In general the author concludes that we should see that in children the diapers are changed often and disinfected, frequent

bathing, fresh air, cool clothing, if chronic tendency a change to coolor climate. not to allow them to be held in the lap: quiet, artention, efficient and restful nuring.

Meningitis.

Bankston, in the Alabama Medical and Surgical Age, advises the following treatment for meningitis: Strychnia, gelsemium, iodide of iron, Fowler's solution, salol, sponging the surface with wood alcohol.

He has used the bromides some with benefit, but none was used in the cases reported.

For purulent discharge from the ear he uses a 3 per cent. solution of menthol and camphor in liquid albolene after cleansing the ear with water.

Dr. Bankston is a firm believer in the specific or germ cause theory of the disease, and he thinks the time will come when we will have a reliable antitoxin in our possession. He suggests that the time is appropriate for the medical profession to unite in soliciting Congress to establish more extensive experimental laboratories, at various places, with a corps of competent observers in charge, for the purpose of isolating the germs of various deadly infections which periodically recur in the several localities in our country. In this way an immunizing toxin might soon be discovered and made available for the use of every one.

Angioneurotic Edema.

Four cases of this strange disease are reported by Dr. Herman B. Baruch in the Medical Record.

The first was in a male aged 59, periodical swelling of the hands, feet, inside of thighs, scrotum and penis, after bathing in cold water, the symptoms disappearing in two hours.

Pilocarpine and quinine had no good effect.

The morning plunge was replaced by a warm bath, strychnine 1-30 three times a day, meats and sweets forbidden. No recurrence.

Second case was a male, age 68, family history negative, at intervals his tongue will swell up so as to fill the mouth, making breathing very difficult, come on usually in the morning, lasts for two or three hours, then suddenly goes down in 15 to 20 minutes, great mental depression and fear of impending death attend these attacks, lasting for several days. Unaffected by treatment.

Third case, male, age 28, family history negative, followed great mental strain, affected penis and scrotum, also an arm.

A brisk cathartic relieved the case.

Case four, male, age 35, family history neurotic, affected hands and feet, penis, scrotum, eyes and lips, preceded by nausea and abdominal cramps, relieved by calomel in a ten grain dose.

Dr. Baruch states that the last two cases were due to intestinal auto-intoxication, and suggests the first indication in individual attacks, to cleanse the intestinal canal thoroughly.

The probable hysterical origin of this affection is strikingly brought out by the author.

Ophthalmology in General Medicine.

Diseases of the eye and its appendages must be of interest to the general practitioner so long as he is called to treat general diseases.

Dr. G. Griffin Lewis, in the New York Medical Journal, mentions quite a number of diseases and conditions in which characteristic changes occur in the eye.

He calls attention to the relation between scrofula and phyctenulæ, styes, conjunctivitis, or blepharitis, rheumatism or gout and iritis, choroiditis or paralysis of the external ocular muscles.

He mentions further eye changes in malaria, syphilis, acute febrile and infectious diseases, diseases of the circulatory system and of the kidneys.

The urine should be examined in a large number of our eye cases.

The condition of the eye is most important in determining the character of intracranial disease or injury. Six out of the twelve cranial nerves go to the eye and it may be called the pulse of the brain.

Dr. Lewis states that we find optic neuritis in a large number of brain lesions with increased intracranial pressure, as abscess, tumor, hemorrhage and meningitis. Hemianopsia, exophthalmia, œdema of the conjunctiva, convergent strabismus, optic atrophy and choked disc are other symptomms of value in intracranial affections. He calls attention to the difference between choked disc and optic neuritis, the latter being inflammatory in character and interfering with vision, while choked disc is simply œdema of the nerve without inflammatory symptoms and not necessarily inttrfering with vision.

Stress is laid upon the early diagnosis of iritis, glaucoma, optic neuritis, sympathetic ophthalmia, gonorrhœal conjunctivitis, corneal ulcers and retinal hemorrhage.

The administration of certain drugs will cause eye symptoms.

Eye strain and headache are closely associated in a large number of cases, he says 80% of 5000 refraction cases suffered more or less with headache.

The relation of eye strain to certain nervous affections as vertigo, hysteria, neuralgia, neurasthenia, chorea, epilepsy and nervous prostration is noted. Digestion and assimilation may be disordered by eye strain. And it all shows that the general practitioner should have some intelligent idea of the eye and its diseases, it may help him in his treatment of general diseases, it certainly will in their diagnosis.

The Bath in Scarlet Fever.

Dr. D. S. Hanson, in the Columbus Med. Journal. makes a very favorable report of the full bath at 90 deg. F., in the treatment of scarlatina.

The indications for its employment are high temperature and severe nervous symptoms, at or near the beginning of an attack. Nervous symptoms coming on late in an attack is often due to organic changes, but high temperature without complication should be treated with the bath whether early or late in the disease.

Whenever the temperature goes to 103, or if attendant is not competent to take temperature, whenever the child becomes restless, the full bath at 90 deg. F. should be used for about eight minutes with rubbing. The author concludes that it reduces temperature, favors elimination, stimulates circulation and strengthens the hearts' action, inhibits the action of the toxins.

In no case was there any complication or sequelæ.

Localized Tuberculosis of the Intestine.

Dr. W. J. Mayo reports seven operated cases for this condition in the N. Y. Med. Journal, with four recoveries, two improved and one death.

Primary tuberculous disease of the intestine is not uncommon. Out of 127 children who died of tuberculosis, the mesenteric glands were involved in 100, the presumption being that the primary disease was intestinal. Osler believes this condition in children to be due to milk infection.

The most common seat is the ileo-cecal coil though the sigmoid and the lower ileum may be affected, the appendix may be the starting point of the cecal infection. The ages of the reported cases range from 15 to 40. A tuberculous family history present in only two and not marked in these.

In most cases alternating constipation and diarrhea were observed; the constant symptoms in all cases were colic and colicky pains.

Intestinal resection or extirpation of the ileo-cecal coil is most frequently demanded except when the extent of involvement or the debilitated condition of the patient render intestinal anastomosis above and below the obstruction a better operation.

Hemoglobinuric Fever.

This peculiar form of malarial disease characterized by the excretion of the coloring matter of the blood by the kidney is treated by Dr. Edward E. Feild, (New York Medical Journal) without quinine, as he states that quinine will produce hemoglobinuria, his treatment consisted of salines, morphine hypo., cold to the head, arsenic to prevent recurrence.

He does not give his mortality rate, but states that in the most successful hands it is not far from 50 per cent.

The differential diagnosis in suspected yellow fever is brought out, the more important points being previous history, presence or absence of Faget's law of rising temperature and falling pulse, the yellowness coming on slowly in yellow fever, suddenly in malaria.

Muco-Membranous Enteritis and Gangrene of the Skin in Hysteria.

Dr. Ch. Fere reports a case of muco-membranous enteritis and gangrene of the skin coexisting in an hysterical subject—Med. Bulletin for July.

The case was a woman, 42 years of age, who was very much frightened by her husband being hurt in an accident. It was during menstruation which was promptly arrested, involuntary movements of the face and arms, principally on the left side, and general debility.

The symptoms increased when she had an attack of chorea with ovaralgia and hemianesthesia of the right side.

Later, she had obstinate constipation, with diarrhea in which hard lumps covered with mucus were passed.

She improved for a time, but following a fit of anger, she was seized with acute pain in right iliac fossa, obstinate constipation and tympanites. After evacuation there were fragments of membranes compared by the patient to pieces of tube, gangrene appeared on the upper and inner portion of the left calf over a space about as large as a ten cent piece.

The patient suffered now and then with these attacks for four years when a second patch of gangrene appeared just below the

first. Taken all together there would seem some connection between the gangrene and the enteritis and the hysteria.

The author compares this case with one previously reported in which hemorrhage from the stomach was noted in an hysterical patient who also had gangrene of the skin.

The Army and Navy Medical Service of England.

In the address on surgery before the British Medical Association, by Alexander Ogston, reported in the Boston Medical and Surgical Journal, attention is called to the sorry condition of the British Army and Navy Surgeon.

Surgery since the immortal discovery of Lister has been wonderfully advanced, and operations which before this period would not have been dreamed of are now done in every village hospital. He says the fault is lack of experience, they have only well picked men to look after in time of peace, and how can that prepare them for delicate though serious operations upon the head, the thorax or the abdomen, in time of war. The standard of military surgery can not be less than that embodied in the following axioms of Senn:

1. That in theory and practice military surgery is equivalent in every respect to emergency practice in civil life.

2, That the wounded soldier is entitled to the same degree of immunity against infection as persons in civil life suffering from similar injuries.

3, That all formal operations in war must be performed where the wounded can receive the full benefit of aseptic and antiseptic precautions.

4. That operative interference is indicated in all penetrating wounds of the skull.

5. That gunshot wounds of the chest should be treated under the strictest antiseptic precautions.

6. That laparotomy in penetrating gunshot wounds of the abdomen is indicated in all cases where life is threatened by hemorrhage from visceral wounds, and the condition of the patient is such as to sustain the expectation that he will survive the immediate effects of the operation.

Twenty per cent. of all wounds in battle are of the head, chest or abdomen. Places for study and practice should be provided; one may know all the theory, but to perform these operations with success, practice is necessary.

The army medical service is undermanned and in case of war the civil profession must be called in.

The medical department in the Navy is, if anything more deficient than the Army.

There are no properly constructed, or rightly situated, operating rooms on any of the war vessels, and the surgical appliances are antiquated and out of date.

Attention is called to the efficiency of the German medical service, where it is compulsory, and every surgeon who has served possesses a fixed military rank even if engaged in civil practice and is liable to be called on at any time, as he has a known military post which he would occupy if war broke out. Also that of Russia and France.

He suggests that the number of medical men who are to serve in case of war should be completed, the equipment and material should be ready and at hand, and men and officers frequently trained in their use.

Field hospitals should have their equipment complete, and their staff ought to be attached to them. Officers should be instructed in their war duties, hospitals should be developed and hospital ships provided. Civil aid a broken reed.

Since our little spat with Spain we might think on these things, and why not in things medical as well as in the other departments of the military service, in time of peace prepare for war.

Incipient Laryngeal Cancer.

In discussing the treatment of incipient laryngeal cancer, Scheppegrell, in the Medical News, says that total eradication of the diseased area presents the only hope of success.

The animal toxins have been used with some little success in sarcomatous growths, but they are of no benefit in epithelioma. Arsenious acid and pyoktannin have been used, but only as palliative measures where an operation is contra-indicated.

In incipient cases the endo-laryngeal operation may be done, but in all advanced cases the external operation should be preferred.

The endolaryngeal operation should be performed with forceps, double curettes or the cold snare. The electro-cautery, electrolysis and cataphoresis should not be used in incipient cases, but only as palliative measures when complete extirpation is not practicable. The earlier the operation the greater the chance of cure.

As long as the malignant growth is situated within the cartilaginous structure the prognosis is much more favorable than when it has reached beyond these limits.

In thyrotomy the tracheotomy should be done first and allow an interval of time, so that the patient may become accustomed to

the artificial method of breathing, a week is the proper interval, unless the symptoms are urgent.

Total extirpation has a mortality of 84 per cent., but the technique of the operation has been greatly improved in the past few years.

The Pathology and Treatment of Gout.

Gout is the expression of a pecular diathesis either inherited or acquired, the distinctive feature of which are the accumulation of urates in the blood, and the deposition of urates in the tissues, says Bontor in Treatment.

If the joints are affected we have articular or regular gout, if other tissues or organs are affected then it is abarticular or irregular gout.

As to the origin of the uric acid he states that we have this data to go upon:

Uric acid is always present in the blood in gout and that it is frequently present in the blood without producing gout, as in pernicious anemia, splenic tumors, etc.

He does not agree with Haig that it is present in the blood normally. He says there are two methods for the formation of uric acid: 1. From the degeneration of the nuclei of the leucocytes; 2. from the union of the glycocine and urea in the kidneys. With the first of these gout is not usually associated, but with the second it does commonly occur. Uric acid accumulation in gout is due to defective elimination on account of some lesion of the kidney.

The quadriurates consists of a true and definite compound of biurate and uric acid, one molecule of each, and is the only form in which uric acid exists in normal urine, being the physiological combination. So then the quadriurates formed in the kidneys being retained on account of impairment of that organ, is taken up into the circulation and as the blood is rich in sodium carbonate, it is gradually transformed into biurates which becomes deposited in those tissues which specially favor its deposition.

In the treatment we should endeavor to prevent the abnormal formation of uric acid, to promote its elimination and prevent its accumulation.

Habits of life and diet must be looked after.

A diet must be selected for each individual patient that he can digest.

Meat, while not excluded, is strictly limited, the same may be said of farinaceous foods and fats. Sugar as sugar is harmless and as a matter of fact, neither fat, sugar nor starch have the slightest effect in the production of uric acid.

Vegetables must be limited, but they are valuable.

In Persia only the rich eat meat, and the poor never have the gout.

The ashes of vegetables have a decided effect upon the solubility of sodium biurate. Copious drinking of water is beneficial; alcohol must be let severely alone.

Physical exercise is of benefit, but overexertion must be avoided; colchicum is good, the alkalies do not exercise any influence upon the solubility of the uric acid, but they are of value in treatment as they have considerable influence upon metabolism and the general nutrition.

He does not think much of the salicylates.

Guaiacum is valuable in those cases where the gouty pains are relieved by warmth.

The local treatment consists of rest, elevation, hot bath, the application of cold dangerous, electricity.

Epidemic Cerebrospinal Meningitis.

The relationship between this disease and acute lobar pneumonia is strikingly brought out by Doolittle in the Medical News in a report of ten cases.

They occurred from November to May in a small village of 800 people, while the surrounding country was entirely free.

Six were males and four females; ages from four to twenty-eight.

All were in previous good health, hygienic surroundings good.

Mortality 50 per cent. Average duration of the fatal cases seven days, of the others four weeks.

Onset sudden in nine cases, gradual in one.

Four cases were ushered in with chill, and all four developed lobar pneumonia.

Vomiting, pain in right side, and headache were present, photophobia and delirium in all cases, coma slight in the milder cases, profound in the fatal ones.

Tenderness over the cervical region with spinal rigidity present in all cases, but rarely present before the third or fourth day.

Flexion of the leg and thigh was present in children. Herpes labialis in every case. Pneumonia in four cases from the beginning, all fatal.

Albuminuria in every case, but no casts were found.

The diagnosis was easy in the fully developed cases, in others hard to determine before the third or fourth day. Some were with difficulty differentiated from pneumonia before this time.

Ten cases of acute lobar pneumonia also developed in the same locality during the month of April, when the largest number of cases of cerebro-spinal fever occurred.

The author concludes that in some epidemics at least, cerebro-spinal fever and pneumonia are very closely related etiologically.

The Treatment of Pneumonia.

Hare, in the Therapeutic Gazette, says that in all acute infectious diseases, and particularly so in croupous pneumonia, patients may be divided into three classes, namely, those who are so mildly ill that all they need is good care and little or no active treatment, cases on the contrary so malignant that nothing can be done that will produce cure, and a third class which, lying between these two types, is capable of cure but only when the individual is aided by the most skillful treatment.

He does not care to be regarded as a pessimist in regard to therapy in pneumonia, but he does believe that the proper way to practice medicine is to recognize one's limitations rather than to be carried away by therapeutic optimism.

The value of the so-called abortive treatment is recognized in appropriate conditions at the proper time, but he thinks the class of suitable cases exceedingly small.

If the patient has a bounding pulse and symptoms that promise pneumonia—such as chill, fever, pain in chest, anxious expression, some cough, in a strong hearty man, with harsh breathing and impairment of resonance in one spot, then use sedative measures. Hot foot-bath, hot compress over the chest or if the fever is high a cold compress, veratrum viride, 3 m. of the tincture, every 15 minutes, for three doses or until the effect; Dover's powder for painful cough and to increase diaphoresis. Such treatment at a very early period may do much to limit the disease.

Venesection he does not think much of, even in the early stage, for the patient is sooner exhausted in the further progress of the disease.

The effect of the sedative treatment mentioned is fleeting and may be overcome by stimulants if desirable, but the effect of bleeding is prolonged and in one sense permanent.

After consolidation, look after *hyperpyrexia* by cold sponging with friction, ice-bag over the heart and one to the head, which not only reduces temperature but slows the heart, diminishes head pain and keeps the mind clear.

Antipyretic drugs should not be used.

Aid the circulation if it needs it, sometimes when we are tempted to give stimulants if we feel our own pulse it will be a surprise to find our own weaker than the patient's, (the rule then would be for the doctor to take a drink first and later stimulate the patient), or rather the patient's heart is over-worked and really needs sedation by means of the ice-bag,

Digitalis good, but slow and prolonged, looses much of its regulating power over the heart in the presence of high fever, so have the temperature down before giving. Give doses far apart, eight, ten, or even twenty-four hours, be sure of the quality of the drug.

Belladonna in 5 to 10 m. doses, every 4 or 5 hours, if the pulse be gaseous and relaxed.

Strychnine, with atropine, only good for a pinch, not for any length of time, as it acts as a whip or irritant to the nervous system.

Coca wine for prolonged collapse. Fine old brandy for old patients who have feeble circulation. Nitroglycerin if the arterial tension is high, if venous engorgement, bleeding.

Oxygen gas may be used in difficult respiration, its value problematical, but it makes the patient more comfortable, perhaps, by its mental effect.

The routine method of treating this disease not to be thought of for a moment.

"The curse of therapeutics to-day is the fact that physicians do not think for themselves, but blindly follow some method seemingly valuable, so that the personal equation of the *individual* is lost in the sum total of the *disease*."

The Typhoid Bacillus.

A few facts concerning its favorable abiding place in the human system and the most successful method by which its poisonous toxins may be eliminated are given by Dr. J. J. McEvoy in the Va. Med. Semi-Monthly for August 25th.

He says that the bacilli are not developed in the intestine but in the intestinal wall, the spleen and mesenteric glands. This being the case the foolishness of the so-called abortive and specific treatment of typhoid is apparent.

The bacilli are rarely found in the stools before the beginning of the third week.

The older methods of treatment must not be lost sight of, such as symptomatic treatment and a careful consideration of nursing and diet.

He is an ardent believer in hydro-therapy where conditions are favorable for its proper manipulation.

Alcohol he thinks indispensable when the fever is high and the pulse weak. Opium and lead to furnish rest and to keep the diarrhea in check.

Fresh butter-milk the best diet.

No solid food until convalescence has been fully established, then the return to the regular diet should be gradual.

Ichthyosis Nigricans.

A very interesting case of this rather rare, at any rate very curious, disease is reported by Ohmann-Dumesnil in the St. Louis Med. and Surg. Jour. for September.

The case is an infant 15 months old, family history negative, personal history good; the scaling began when the child was two weeks old.

The entire body and limbs are covered by the black, spinous dry skin.

The author in reviewing the literature of the disease shows that there is very little said about this condition and various explanations are offered for the black color of the scales. He is of opinion that it is due to certain inorganic salts of the epithelial cells which are turned black by direct exposure to the air. The theories that it is due to migration of the skin pigment or to the consequences of uncleanliness are not tenable. No cure has yet been found for this condition and the most that can be done is palliative treatment.

Rheumatism and Heart Disease.

In diseases of the heart the cause is usually a remote one, the heart disease being a sequel, says Bell, in the Medical Monograph.

Rheumatism is, he thinks, the most prolific source of endocarditis, even more so than scarlet fever.

Rheumatic endocarditis is less amenable to treatment than that produced by other conditions, as one attack of rheumatism predisposes to another, thus maintaining the irritating factor. Vavulitis following rhematism is accounted for by one or both of the following theories: Stimulation of the pneumogastric nerve by cerebral irritation, as chorea in children may be a frequent antecedent of valvulitis; the other is that the cause lies in the blood, either in its diminished alkalinity due to the presence of uric acid and urates or to physical irritants such as precipitated uric acid crystals, urates or bacteria.

He supposes that a motion is imparted to the blood in passing over or through the valves comparable to that of a milk separator or centrifuge and so insoluble particles have a tendency to cling to the valves. The diminished alkalinity of the blood is thought to be a great factor and hence the proper treatment is by the alkaline salicylates whereby we neutralize the specific poison at the same time the alkaline base tends to restore the normal reaction.

A distinct valvulitis may exist without symptoms, acute myocarditis may be confused with inflammation of the valves. Uusually the patient complains of pain increased on the slightest exertion, pressure in the third or fourth intercostal space increases the pain.

On auscultation, reduplication of the first sound is heard, but no murmur unless endocarditis coexists.

The mitral valve is most frequently affected occasionally the aortic or both conjointly.

The cardiac involvement may or may not bear relation to the severity of the original disease.

In all cases of rheumatism look out for heart complications daily and on appearance of oppression, palpitation, or dyspnœ even without a murmur, the salicylate of soda or ammonia should be pushed, large doses of alkali with small doses of digitalis and this persisted in together with an occasional mercurial purge until all cardiac symptoms subside. Treatment should be kept up for two to four weeks after all acute symptoms subside.

Sycosis-Keloid.

Five cases of a rare and peculiar affection of the skin are reported by Hutchinson, in the Archives of Surgery, under the name of sycosis-keloids. Similar tumors have been described under the name of acne-keloids by Baker and several French writers.

Under whatever name, it means that keloid indurations may form and advance usually around hair follicles and the first stage of the condition is chronic pustular inflammation. The nape of the neck is the common site, but not the only one. In the five cases reported one was on the inner side of the knee. The points in the diagnosis are the smooth surface, the absence of papillary growths, the density and thickness of the new formation, the collection of the hairs into tuffs. The actual cautery was used in a large sycosis-keloid of the neck, without anesthesia, in another fuming nitric acid was used.

In one case the patient had two brothers with rhino-scleroma of the upper lip and the patient himself was suffering with an attack of acute lichen ruber; however it did not implicate the back and was wholly unconnected with his other ailment.

The Administration of Anesthetics.

Gallant, in the International Journal of Surgery, gives the following rules in regard to patients about to be anesthetized.

The examination of the patient should begin, when possible, one week before the operation and consists of chemical and microscopical examination of the urine, the thorough emptying of the intestinal tract which can hardly be done in less than a week, no cathartics later than forty-eight hours nor enemata later than twelve hours prior to administration of anesthetic.

Liquid food the day before with an excess of water, no food at all for twelve hours before an operation.

Bath, secure sleep the night previous, make all preparations the day previous, note the general condition of the patient, as temperament, skin, pulse, etc., as this will enable you to judge better the relative condition after the operation.

Remove all false teeth, earrings, finger rings, loosen any constriction about the chest, pillow under the head, not under shoulders.

The surgeon in charge should select the kind of anesthetic and the proper cone.

Tell the patient to breathe deeply, Esmarch's mask the best inhaler for chloroform which must be added drop by drop continuously, not in one spot, but distributed uniformly over the surface of the mask.

To avoid accidents, have the bowels in proper condition, give hypodermic of morphia before the anesthetic, the anesthesia must be profound, watch the heart, the lobe of the ear a good indicator, strychnine 1-30 gr., whisky or brandy hypodermically, 10 to 20 ♏. of tincture of digitalis for irregular or failing heart. Hot saline enema or into the median basilic vein if much blood has been lost.

He prefers the Allis inhaler with the interlacing bandages replaced by gauze.

We should prevent "pharyngeal stertor" by having the patient's head in a comfortable position, not too far back or too far forward. The tongue should be pulled upward toward the nose in order to open the larynx. Cyanosis usually occurs in short necked people and requires nice adjustment of the head and more careful watching of the general condition.

Vomiting may occur, turn the head to one side, wipe out the mouth and crowd the ether.

Oxygen may be used as stimulant to heart and respiration.

Marshall Hall's method of artifical respiration is recommended as the best.

Two hundred and nineteen deaths occurred as follows: At the commencement of inhalation 15.

Before complete insensibility 99.
During the period of insensibility 70.
After completion of the operation 35.
Nitrous oxide for short operations.

Osteitis Deformans.

A case of this disease in a woman, 60 years of age, is reported by Kidder in the International Journal of Surgery.

She sustained an intracapsular fracture of the femur, but made a good recovery, when she fell and injured the other knee.

Some time after the family began to notice that her form was changing, her head was growing larger while she appeared shorter in stature, the bones of the leg and forearm are bent to a marked degree. the curves of the vertebral column are very much increased with the supervention of a lateral curvature. The cranium increased in size from 21 to 25½ inches in circumference.

The facial bones remained unchanged, giving her face a very pointed expression.

Her general health has been good until the summer of 1896 when she had an attack of hematuria, with a large amount of albumin and casts.

She also has a marked dilatation of the heart with the apex beat 5½ inches to the left of the sternum.

On attempting to get out of bed one morning she had a severe pain in the lumbar region so that she was confined to bed for eight weeks. With the exception of this one attack she has had no pain or fever or any symptoms that would call her attention to the unnatural condition of the bones. No mental symptoms whatever.

The fracture, dilatation of the heart and kidney disease may have nothing to do with the disease, yet it would seem that the underlying cause of the one was either directly or indirectly the cause of the other.

The treatment of osteitis deformans is simply to improve the general condition and attention to the symptoms if any arise.

Functional Diseases of the Heart.

Functional diseases of the heart, in the strict sense of the word, is a misnomer says Glasscock in the Medical Monograph, but for convenience he divides such diseases into: Slow pulse, intermittent, irregular, frequent pulse, palpitation.

Southey is quoted mentioning a case he has observed for 30 years in which the pulse rate was thirty. Flint reports a case in which the pulse rate was 16.

Hewan's normal pulse rate was 20. In

diseases of the brain and cord, the pulse may be very slow. Charcot in mentioning three cases of infrequent pulse says the medulla was at fault.

Intermittent pulse may be met with in old people in which the arteries contain more or less calcareous material.

Irregular action of the heart may occur in rheumatism, syphilis, and hysteria.

Frequency of the pulse may follow fright, pronounced emotions of any kind, following some acute diseases as scarlet fever.

Palpitation is the most frequent of all the functional diseases of the heart and causes most annoyance to the patient and physician.

Anemia is a frequent cause, sexual excess, indigestion, the uric acid diathesis, the menopause, excessive use of tobacco, hysteria may cause palpitation.

The diagnosis is by eliminating all organic disease of the heart.

The treatment is the removal of the cause, the remedies used in ordinary diseases of the heart are not to be employed, as they may do harm. Nerve sedatives are useful, at least temporarily. Assure the patient that there is no real disease of the heart and that there is no immediate danger.

The New Treatment of Tetanus.

The treatment of tetanus by intracerebral injections of antitoxin is advocated by Lanphear in the American Journal of Surgery and Gynecology.

After reviewing the reports of cases treated by the subcutaneous injection of antitoxin he agrees with Keen and DaCosta that serum treatment has not improved the prognosis in acute cases, but in milder cases it may lessen the mortality.

He reports 22 operations for intracerebral injection of serum with thirteen deaths and nine recoveries, a death rate of 59 per cent. which he says is certainly better than that obtained by subcutaneous or intravenous injections in cases of like severity. To insure success he insists upon perfect asepsis in opening the skull, concentration of the serum without danger of contamination, absolutely aseptic syringe and needle, a syringe working smoothly and large enough to hold 4 cc. (one dram), a fine needle two inches long, aseptic rubber tube connecting the needle with the syringe.

One-fourth inch button should be taken out over the second frontal convolution or angular gyrus, avoiding the motor area, in injecting, insert needle about two inches at right angle to the skull and with steady pressure slowly inject contents of the syringe. The button, which has been kept in hot sublimate solution, is put back in place, and the scalp sutured with a continuous catgut suture. The operation is repeated upon the opposite side.

Dressings are retained by a moist starch bandage.

In making these injections great care should be taken to avoid injuring the cerebral tissue or puncturing one of the large blood vessels; this can be done by making the injection slowly but steadily. and by having the needle at least one inch from the skull in the second convolution.

The intracerebral treatment must be followed by intravenous or subcutaneous injections of from 15 to 20 cc. of serum every eight hours, morphine and chloral in sufficient quantities to procure sleep.

Attempts at forced feeding are not recommended.

The difficulty in making a clear diagnosis is mentioned in conclusion, as even pronounced trismus is not an infallible sign, it may be present in meningitis or even absent in fatal cases of tetanus.

So that great care must be taken to exclude meningitis and hysteria. He then concludes that in wounds of such character that tetanus is feared preventive injections are advisable.

That when symptoms of acute tetanus arise injections of 10 cc. or more should be given every six to twelve hours, and as early as possible a competent surgeon called to trephine and inject the brain.

In tetanus neonatorum appropriate doses should be given subcutaneously and into the brain substance through the fontanelles. Sedative agents should be freely given along with the serum treatment.

A Case of Foreign Body in the Heart.

Dr. W. Ophuls reports a case of a needle found in the heart wall projecting into the left ventricle, in the Occidental Medical Times for August 15.

The patient died of tuberculosis and the needle in the hoart was in no way responsible for the fatal end. No history could be secured as to how the needle got in, but the doctor's theory is that it was part of a needle used to make an exploratory puncture of the pericardium and by some accident it was broken off in the heart muscle.

The entire length of the needle was about 2½ cm., and consisted of a solid piece of brass with a sharply pointed end surrounded by a hollow tube 1½ mm. in diameter. The tip of the needle was covered with a thin grayish-white film with glistening surface.

The writer reviews the forty-seven cases

in literature in which foreign bodies remained in the heart while the patient was living.

In twenty-four cases the foreign bodies were needles, in ten cases bullets, in others a variety of different things, such as a thorn, a stick three inches long, a skewer four inches long, ivory tooth-pick, a long piece of file, a splinter of wood, iron rod, an eraser knife, etc.

Surgical interference was tried in seven cases, in all of them with good success.

The author concludes that we should not say that exploratory puncture of the pericardium is free from all danger because our patient survived not only the unintentional puncture, but also the breaking off of the needle in it.

Hahn reports a case in which he accidentally punctured the heart of a moribund patient, and although the needle used was of a very small caliber, the ensuing hemorrhage was sufficient to be the direct cause of death.

Cerebrospinal Fever.

The Cavendish Lecture by Osler had for its title the Etiology and Diagnosis of Cerebrospinal Fever, as reported in the Boston Medical and Surgical Journal.

He finds a specific organism, the meningococcus or diplococcus intra-cellularis meningitidis to be the cause of the disease. There is no capsule formation and the diplococcus is decolorized by Gram's method. Cases coming to autopsy at the height of the disease furnished a number of the germs, cases that succumbed late in the disease furnished little or no evidence of their presence.

Mixed infection with other organisms is not uncommon, the pneumococcus, staphylococci and streptococci may be found. The tubercle bacillus may be found present with the diplococcus intracellularis.

The diagnosis is at times exceedingly difficult and sooner or later the truth of Stokes' dictum is brought home to each one of us. "There is no single nervous symptom which may and does not occur independently of any appreciable lesion of the brain, nerves or spinal cord."

The nomenclature is very unsatisfactory, he suggests the following divisions: Primary and secondary; under primary, cerebrospinal fever and pneumonia; under secondary, tubercular, pneumonia, pyogenic, acute infections as typhoid, influenza, etc., and that all of these should be grouped under Acute Leptomeningitis.

The following points present in the proper diagnosis: The abrupt onset; the irregular fever may be like that of typhoid or malaria; the various skin rashes, herpes, erythema, petechiæ, leucocytosis; asthritis or more often periarthritis; Kernig's sign, that is cases lie with the leg flexed on the thigh and the thigh on the abdomen and they are with difficulty extended if the patient is placed in the sitting position; lumbar puncture remembering that the first may often be negative.

Sporadic cerebrospinal fever is rare and perhaps many of the cases so reported were in reality cerebral forms of typhoid fever or of pneumonia. In every case of sporadic meningitis a careful examination should be made for the meningococcus and the pneumococcus, as we are still ignorant of the proportion of cases due severally to these organisms. In twenty-five cases a careful examination showed cerebrospinal fever in six; pneumococcic meningitis in eight; pyogenic meningitis in seven; four classed miscellaneous.

Pneumococcic meningitis is important as a frequent complication of acute labor pneumonia or it may occur from local infection, or even as a primary disease, and the history of cases are givent to illustrate each form.

He uses morphia freely to control pain, ice sponging when the temperature exceeded 102½, in two cases the spinal canal was opened, drained and irrigated, he considers the operation justifiable in desperate cases.

Facial Paralysis.

A case of facial paralysis in a woman, aged 27, is reported by Beazley in the Medical Register.

Patient married, one child, health good up to two years ago when her mother died, and since then she had indigestion and nervousness.

After headache for several days the right side of the face relaxed, the corner of the mouth drooped, the naso-labial fold and groove were almost obliterated, the lips could not be brought in position to whistle, the forehead could not be wrinkled, nor the eyelids closed, unable to masticate, loss of taste, diminution in the flow of saliva, on phonation the labial sounds were interfered with, the expression on the sound side was exaggerated, hearing was temporarily affected. The pain in the head was severe, especially in the occipital region.

Two months later there was some improvement, but two months and a-half from the first attack the left side of the face was similarly affected.

The treatment consisted of 15 drops of a saturated solution of iodide of potash gradually increased in two weeks to 80 drops;

she had taken in all seventeen ounces. Electricity was used continuously, the muscles on the right side primarily affected did not respond at first to the will or the current; after three months persistent effort they responded to both.

He is standing by his treatment and hopes to have her well before very long.

Hereditary Syphilitic Dactylitis.

A very interesting case of hereditary syphilitic dactylitis in a child twenty-three months old, is reported by Bosher in the Med. Register.

The patient, a colored female, had swelling in the proximal phalanx of the little finger of the right hand shortly after birth. It assumed the characteristic acorn-shaped appearance of syphilitic dactylitis. The swelling increased until the finger suppurated. Eight months after birth a well-marked attack of osteo-chondritis occurred at the distal extremity of the right forearm which has steadily increased up to the present time.

There were syphilitic ulcerations on the left forearm and on the right temple extending down to the bone, ulcerations had also appeared on the hips but there was no eruptions.

Coryza is still present and the mother stated that "sniffles" was a prominent early symptom. The eyes show a specific blepharo-adenitis, maculæ of both cornea show previous keratitis, the child had been nursed by its mother up to one year ago, has always been hearty and now eats and digests any kind of light food.

Mercurial ointment with pressure locally to the finger serves a good purpose in the treatment, if the tension is great free incisions for relief, curetting or resection when there is dead bone, in connection with specific constitutional treatment.

Strangulated Inguinal Hernia.

Fenner, in the New Orleans Medical and Surgical Journal, reports a case of strangulated inguinal hernia in a five-months old baby.

The mother first noticed lump when the baby was four weeks old, it was breast fed and healthy until at the age of five months he began straining and vomiting, the lump in the groin become tense and could not be pushed back, the vomiting became fecal on the third day and he was brought to the hospital. Taxis was tried under chloroform, but without success, on operating the hernia was found to consist of the cecum, appendix and ileum with a part of the omentum, the sac contained a good deal of bloody fluid and the bowels showed the effect of the strangulation.

After dilating the ring with the finger the bowels were replaced, a ligature put around the sac and the skin rapidly sutured, as the little fellow had collapsed and Dr. Fenner was more anxious to see him live than to die from a beautiful Bassini complete. The bowels moved twice the same evening, the wound healed without suppuration. In a week the child was discharged well, two months later was still well, but with evidence of a partial return of the hernia, for which a truss was ordered.

The Treatment of Syphilis by Intravenous Injections of Mercury

Dudley Tait, in the Occidental Medical Times for August 13th, reports several cases in which he used the intra-venous injections with decided advantage.

The most practical solutions are the cyanide 1-100 and 1-200, the sublimate 1-500 and 1-1000, the amount for daily injection 1-3 c.c.

One of the large veins at the flexor surface of the elbow is used and a moderate size hypodermic needle. The arm is constricted until the puncture is made, then loosened while the injection is given. The patient should feel only the puncture of the skin unless some of the solution gets into the cellular tissue. No danger of emboli or infection. Cyanide contains 80 per cent. of mercury and is more easiiy handled than the sublimate, which only contains 74 per cent. It should be used in 1-2 to 1 per cent. solutions. The rapid absorption and complete elimination are demonstrated by the appearance of the mercury in the urine within ten minutes after an injection and by its disappearance thirty-six hours later.

The older methods of administration are suitable for only 80 per cent. of cases, the remaining 20 per cent. being grave cases must be treated by something more certain and immediate. He does not think much of the hypodermatic method, but the intravenous method can be used safely and very successfully in grave cases.

Fourteen cases are reported in which no ill results followed the injections.

As indications for its use, the author mentions those cases where other recognized methods have failed (glossitis, phagedenism) and in cases demanding rapid action or early intense mercurialization (malignancy.)

Lesions of exceptional severity as phagedenic chancre, primary malignant sy-

philis, tertiary lesions of the eye, brain, cord, nerves and tongue.

In the differential diagnosis of certain neoplasms, in suspected tertiary syphilis or in the presence of the numerous psendo-tabetic phenomena or grave symptoms such as epileptiform attack, coma, etc., intravenous injections of mercury are of much greater value than the administration of the iodides.

The special indications having been fulfilled it can be superseded by some simpler and more practical method.

Diseases of the Nails.

Hutchinson, in the Archives of Surgery, discusses those diseases of the nails which occur in connection with common psoriasis of the skin.

He states that the most typical form is primarily an affection of the nail-bed; the nail begins to loosen at its free edge and sides; it begins to look discolored and dead from the accumulation of dry epidermis and dirt that takes place between it and its bed; in many cases the nail is not altered, but remains transparent. In a short while, however, it becomes opaque, fibrous and brittle. It usually breaks up by fragment, but may be exfoliated entire. He believes this should be called psoriasis of the nail-bed rather than of the nail; it is most usual in patients the subjects of psoriasis; many cases are complicated as the disease on the skin may be variosuly modified. To find the type of psoriasis-nail disease we must take only cases having characteristic and unmixed psoriasis of the skin; such cases are not so numerous as another group in which the skin shows only a few patches and these are ill-marked. In other cases there is no skin disease in the patient, but psoriasis in a near relative and in still other cases there may be no tendency even to skin disease in either the patient or his relatives.

If in these three latter group the type of psoriasis of the nail-bed is well maintained we may assume that the cause or proclivity is the same.

A large number of psoriasis patients escape nail affections altogether and others may have psoriasis of the nail-bed and escape the skin affection. If the type of skin disease is mixed then the type of nail disease will be mixed also.

In eczema the surface of the nail suffers rather than the nail-bed and the evidences of the disease are usually seen first near the root and not at its free edge.

Chronic conditions present a mixed form.

Psoriasis is not always a slight affair or a mere disfigurement; it may be attended by swelling, and much aching; its onset may be sudden and its course acute. The severe forms are met with in elderly people.

Arsenic in full doses continued at intervals for some time was the most satisfactory general treatment.

The Fluorometer and X Ray Work.

Robarts, in the American Journal of Surgery and Gynecology, considers a fluorometer an indispensable accompaniment of an X ray outfit.

The X ray simply gives us a shadow upon a plane surface and we all know how a shadow may be distorted in relation to the object.

He recalls the grotesque objects we were able to make with our hands in childhood as illustrating the errors possible in X ray work unless we have some instrument of correction.

In 1897 Dennis, of New York, conceived a method whereby the parallelism of the rays could be effected and constructed a table and appliance for this purpose.

This fluorometer consists of right angle metal devices impervious to the rays with wooden supports and an adjustable table, it provides a perfect shadow when thrown on a screen or sensitive plate, elimination of the distortion resulting from the rays, an accurate cross section of the body and supplies an absolutely correct right angle at the intersection of the lines of which the foreign object will be found in the body.

He states in conclusion that without the evidence of a fluorometer having been used as clearly shown by its own shadows in the radiograph, no X ray picture should be admitted as evidence in any court.

Cystic Formations Caused by Ear-Pulling.

The formation of cysts in the upper half of the external ear may be caused by repeated forcible pulling of the ear, says Hutchinson, in the Archives of Surgery.

He mentions a case with conspicuously enlarged ears caused by constant pulling and manipulation, as the patient had a habit of fooling with his ears whenever engaged in thought. The cystic formations in the ear are chiefly found in lunatics, and it has been suggested that it is caused by the attendants pulling the ears of their patients, that being the only form of punishment allowed them. In lunatics they are found in the upper part of the ear or that most likely to be pulled by another person, while in this case when the injuries were self-inflicted the cysts were chiefly found in

the middle of the ear or the part most likely to be implicated in bending forward of the ear by the fingers of its possessor. The right ear was more severely affected than the other, probably because accessible to the left hand, while the right engaged in more important matters. The patient was a musician and a very restless man.

He holds that the condition is always the result of violence and has no essential connection with insanity.

Cancer of the Colon.

Sinclair White, in the Quarterly Medical Journal, reports a case of cylindrical celled epithelioma of the colon, in which the mesenteric glands were involved, operated on with success

The patient was aged 41, female, abdominal pain for past year, tumor in right groin freely movable.

It proved to be a cancerous mass growing in and completely surrounding the lower three inches of the ascending colon.

The lumen was the size of a crowquill, and there were ten or twelve enlarged lymph glands in the mesentery.

Two fine rubber tubes were passed through the mesentery of the ileum, one six, the other four, inches from the ileo-cecal junction, and the ileum divided between. The mesentery of the cecum and lower two-thirds of the ascending colon were divided by a Λ shaped incision, so as to include the infected glands. The colon was secured by a third rubber band well above the seat of disease and divided. Torsion and silk ligature were used for the rather free bleeding.

The large gap in the mesentery was closed by a continuous silk suture, the colon and ileum being joined by a Murphy's button. The abdomen was closed without drainage.

The patient suffered considerable shock, rallied slowly, made an uneventful recovery, the button passing on the twenty-fifth day.

The patient, three and a-half years after the operation, is in good health, bowels normal.

The Cause of Cirrhosis of the Liver.

Rolleston, in the Quarterly Medical Journal, says that cirrhosis of the liver is the result of some poison, or very possibly, poison-producing bodies such as micro-organisms reaching the liver.

They may reach the liver by the portal vein or by the hepatic artery, that is from the alimentary canal or from the general circulation.

The poisons conveyed by the portal vein are, first, ingested poisons as alcohol and other poisons; second, poisons manufactured in the alimentary canal causing dyspeptic cirrhosis; third, the poison of congenital syphilis through the umbilical vein.

Micro-organisms may be conveyed to the liver by the portal vein producing a septic or infectious cirrhosis in contra-distinction to toxic cirrhosis. Such a condition while being highly probable, cannot be proven at present.

The poisons that reach the liver through the hepatic artery are produced in the blood by the specific fevers, typhoid, scarlatina, measles and variola. In splenic anemia or Banti's disease the liver may show a secondary fibrosis, in some cases of diabetes mellitus cirrhosis complicates the original disease.

Prolonged poisoning with vegetable, mineral and bacterial poison will cause fibrosis. The injection of bacterial poisons into the circulation when carried on rapidly.

Finally, cirrhosis may be due to micro-organisms in the general circulation as in malaria, in infective endocarditis, and in puerperal septicemia.

The author concludes that experiments show that a large number of poison are capable of producing cirrhosis of the liver; these poisons may be absorbed either from the alimentary canal reaching the liver in a comparatively concentrated form or they may travel to the liver by the hepetic artery, being diluted as compared with the former class. Ordinary cirrhosis in man is due to poisons gaining admittance through the portal vein; of these poisons alcohol acts indirectly or in an accessory manner.

Syphilitic Periostitis.

The chronic forms of periostitis and osteïtis which occur in connection with inherited taint are usually found in children from five to ten years of age, says Hutchinson, in the Archives of Surgery.

The bones most usually affected are the tibia, fibula, and ulna; these are greatly thickened and not infrequently we have necrosis of a thick superficial fragment. Severe aching is felt in the affected bone, but, unlike the periostitis of acquired syphilis, there is a distinct tendency to spontaneous cessation. After lasting for one or two years it may get well with no tendency to relapse. The tibia is most often affected of all the bones, but any of them may be diseased. The overgrowth of bone may cause increase of length as well as thickness and with this bending may be associated. In former days these bent tibiæ have been treated for rickets by some of our orthope-

dic friends to the great discomfort of the patient. Osteitis deformanis may be simulated if both lower extremities are affected.

The cases referred to above are those of the tertiary stage during the secondary period—that is during the first year of life—more acute forms of periostitis may occur leading quickly to suppuration.

In the early infantile period the bones of tho skull are prone to suffer and diffused encrustations may result ("Parrot's bosses.")

In the early period the parts near to joints more frequently suffer than the shafts of long bones.

The tendency to periostitis in the early or secondary state is always transitory, and in this respect it corresponds with the rare forms of periostitis sometimes encountered in the secondary stage of acquired syphilis.

Adenoid Vegetations.

The relation of adenoid hypertrophy at the vault of the pharynx,to certain diseased conditions of the ear is discussed by Calhoun in the Va. Med. Semi-monthly.

Dr. Calhoun speaks of his personal experience in the matter.

These growths under certain conditions exert a serious influence upon the child's future physical and mental development.

The nasopharynx is important because of its relation to the nose and ears.

The nasal cavities perform vital functions in the act of respiration—they warm,moisten and cleanse the inspired air, but if these cavities are occluded by growths the functions are lost and breathing through the mouth is a very poor substitute. The infant at the breast finds such difficulty in feeding as to result in malnutrition, Children with adenoids are much more susceptible to croup, laryngitis, bronchitis and pneumonia. These hypertrophied masses are usually soft to the touch, friable and easily broken down, but sometimes another form is found, that has a smooth firm surface, composed largely of fibrous elements. This variety is found in older children and in young adults, and they are more difficult to deal with.

The children in the South suffer less from adenoids than those in the North, of course it is frequently found in the South, but not near so frequently as in the North.

They do not occur in the negro race, hypertrophied tonsils are found in both races and the two conditions are often found together in the white race. Hence it is that excision of the tonsils often fails to give relief as the adenoids are left behind. The double operation should be done in such cases.

Adenoid vegetations produce deafness in nearly all cases. Early in the disease the loss of hearing is moderate, but the diminution becomes more and more marked as the disease advances.

Direct pressure upon the mouths of the eustachian tubes rarely occurs but their function is frequently interfered with so that contraction or sinking in of the drumhead follows more or less pronounced. The cause is either swelling of the mouth of the tube or an extension of the inflammatory process through the tube into the middle ear. The condition ends sooner or later in chronic catarrhal otitis media with ankylosis of the ossicles. Suppurative inflammation of the middle ear may result from adenoids.

Diagnosis may be made positive, by the finger or by the mirror, in young children he prefers the finger. The treatment is removal, except in those cases where no trouble is experienced from their presence but even then the child should be carefully watched.

An adenoid mass is a real foreign body in the nasopharynx and its early recognition and thorough removal becomes an imperative duty to the surgeon.

The Enigma of the Uterine Sound.

The fact that an uterine sound when introduced into the womb will sometimes pass to a distance far exceeding the length of the uterine cavity, and the operator feel no sense of overcoming any special resistance, is discussed by Hellier in the Quarterly Medical Journal.

He reports a case of his own in which he was curetting an ordinary case of incomplete abortion two months after miscarriage in the eighth week of pregnancy.

He shows that in certain cases it is possible for the sound to enter the oviduct, but in most cases actual perforation of the uterus has occurred as in his case.

The ease with which the sound will pass through the uterus in some cases is surprising; a case is quoted from Glaeser in which a hysterectomy being necessary after perforation, it was found when the uterus was removed that the sound's *own weight was sufficient* to make it perforate.

In most cases, of course, sounding, dilating and curetting are exceedingly safe, strict asepsis and skilled manipulations being presupposed, but there are exceptional cases in which such proceedures are exceedingly dangerous, such cases may follow abortion, be associated with new growths or septic processes.

The precautions most needed to prevent such accidents are, asepsis, careful estimation of the size and position of the uterus before commencing, the gentleness born of a knowledge of the condition that may occasionally be present, avoidance of powerful ovum forceps in abortion cases, rest in bed and careful surveillance after any curetting.

In cases of suspected perforation gauze packing and rest, or in serious cases exposure of the uterus by vaginal or abdominal section and suture of the rent.

Carcinoma of the Ascending Colon Simulating Appendicitis.

George Wilkinson, in the Quarterly Med. Journal, reports a case of circinoma of the ascending colon that had been diagnosed appendicitis and sent to the hospital for an operation. On operating, the cecum was found surrounded by adhesions which were broken down by the sponge and finger, there was a deep dimple on the front of the longitudinal muscular bands and a mass was felt inside the gut just above the dimple. It was thought the appendix had become invaginated but on further search it was found behind the cecum and bound to it by adhesions.

The adhesions being separated all around the cecum and colon, the external layer of the maso-colon divided, rubber clamps were passed around the ileum and colon above and below the growth. The isolated bowel was then drawn out and incised when a carcinomatous mass about two inches in circumference was found projecting into the bowel, just above the ileo-cecal valve, no involvement of glands was made out. A resection was decided upon and five inches of the ascending colon, the cecum and one inch of the ileum were taken away with a wedge of the mesentery, the cut end of the colon was closed and the ileum implanted laterally by means of a Murphy's button. The cut in the wall of the colon was made to fit its half of the button very snugly and further held by a purse-string suture. Chromicised catgut was used and a few Lembert sutures added to strengthen the junction. As considerable raw surface was left where the cecum and colon came away from the abdominal wall, a gauze drain was put in. The patient suffered some pain, had slight temp., 3d day some pus on gauze drain, rubber tube substituted. Button passed on 14th day, Catgut ligature on the deep epigastric vein discharged itself through a small sinus.

Microscopic examination of the tumor showed a columnar celled carcinoma.

Catgut is awfully hard to render sterile, and until we find a sure method, silk is safer. When operating for appendicitis it is not a bad plan to have a Murphy button lying in a convenient place properly sterilized.

Auxiliaries to the Climatic Treatment of Phthisis.

Climate, hygiene and dietetics are now the first things to be mentioned in the up-to-date treatment of tuberculosis, but some very useful auxiliaries are discussed by Stubbert, of the Loomis Sanitarium, in the Medical Review of Reviews.

The upper air passages should be looked after as a routine practice in all cases of phthisis as his statistics show that 25 per cent. of the cases have more or less involvement of the larynx and nasa-pharynx and of this number 38 per cent. show congestion or infiltration of the arytenoid cartilages, inter-arytenoid space, ventricular bands or vocal cords; 32 per cent. show ulceration most frequently on the cords or inter-arytenoid space; 30 per cent. have some abnormal condition of the naso-pharynx. Such cases need appropriate local treatment in addition to the climate, etc.

Static electricity is valuable in conjunction with tonics for anemia and neurotic conditions, the patients are placed upon an insulated platform and charged with negative electricity for ten minutes, then detained in a room heavily charged with ozone for one hour each day.

The diet in all cases should be carefully attended to. He claims for the serum treatment, that it does not tax the functions of digestion or produce gastritis, diarrhea or loss of appetite, in some cases the bacilli have disappeared while the sputum was still present while in the creosote treatment the last specimens of sputa contained bacteria no relapse had occurred as is occasionally met with in creosote cases. The serum used was from the United States Government, Bio-chemic Laboratory.

In general, he does not agree with Maragliano in regard to the serum treatment, but thinks it should only be given in the incipient cases with simple infection.

Anti-streptococcic serum is not indicates in patients residing at high altitudes as the germ disappears in the majority of cases. Ichthyol in large doses gives good results, 30 grains three times daily in such form as to pass the stomach undissolved. In far advanced cases with cavity it acts well and has the power to convert the function of the pyogenic membrane into one which secretes mucus instead of pus, the debili-

tating effects of pus absorption is put aside and general improvement is noted.

Kalagua, the extract of a plant originally found in Japan which has been transplanted in South America, was used with good effect in some cases, in others with no apparent advantage.

Creosote ranks between kalagua and ichthyol. The increase of weight and improvement following the use of creosote are sometimes very temporary, and the disagreeable odor stamps the patients as one who has consumption. Hot air inhalations and cold sprays from the multiple comminuter are of value in fetid expectoration and excessive cough, they also serve as lung gymnastics in a minor degree.

PER CENT. CURED.	
By Serum, 24	per cent.
" Ichthyol, 14	" "
" Kalagua, 24	" "
" Creosote, 16	" "

PER CENT. IMPROVED.	
By Serum, 59	per cent.
" Ichthyol, 58	" "
" Kalagua, 45	" "
" Creosote, 59	" "

The Preventive Treatment of Tuberculosis

Brush, in the Brooklyn Med. Journal, brings out the importance of this subject in a paper on the prevention and modern treatment of tuberculosis.

Dr. Brush was chairman of the Senate committee of New York State to inquire into the advisability of establishing a State Hospital in the Adirondacks and has made a thorough study of the subject.

He does not think the people are sufficiently alive to the dangers from this disease.

If seven to eight thousand people died in New York city every year from small pox, yellow fever, or cholera, there would be great excitement and every effort made to limit and stamp out the disease, yet tuberculosis from the best evidence attainable is responsible for the death of eight thousand people every year within the limits of the greater city.

And there is not a single public hospital for the treatment of this disease in the State of New York. The general public hospitals refuse to take them. There are two recognized methods of contracting the disease, from the air we breathe, and from the food we eat.

An average consumptive will expectorate between thirty and forty million bacilli in a day, and when we remember the number of these people it is a thousand wonders that we do not all have the disease.

The following facts are emphasized, incipient tuberculosis tends to recovery, advanced tuberculosis, with or without mixed infection tends to a fatal issue, in all coughs which last more than a few weeks, tuberculosis is to be suspected as a cause, successful treatment and prophylaxis demand the earliest possible diagnosis.

Those who live in the open air constantly have an almost complete immunity from consumption.

The sale of adulterated or diseased food should be checked by the most stringent laws. If man can be protected from tuberculous meat and milk and the sputum of consumptives be properly disposed of, the danger of the transmission of this disease will be greatly diminished.

The author concludes that tuberculosis is one of the most fatal diseases that afflict the human race, that it is an infectious disease and may be conveyed through infected food.

The fruit, candies, cakes, etc. displayed upon stands on the streets and largely sold to children are sources of danger on accouot of the disease-laden dust.

Intelligent preventive measures will sensibly affect the death rate.

Treatment of Endometritis.

In the treatment of endometritis we must correct the "run down condition" of our patients, says Murphy, in the Amer. Jour. of Surg. and Gynecol.

Proper tonic treatment, regulation of the bowels by some of the natural aperient waters as they are usually constipated, and bath at bed-time to promote sleep.

Boroglyeride tampons, and hot douches are in most cases simply killing time while time may be killing the patient, as the disease may be extending upward to the tubes and ovaries.

He endorses Munde treatment for cervical endometritis as follows, dilate the cervical canal, sharp curette the entire canal up to the internal os, mop out and pack with a strip of iodoform gauze, remove in 48 hrs. and replace, repeating until the slough has separated from the cervical canal, when nitrate of silver 60 grains to the ounce, or iodized-phenol is applied until all secretion is stopped and the uterine orifice has regained its normal size.

For corporeal endometritis, the patient is placed under an anesthetic, the canal dilated and the uterus explored with the finger, the sharp curette over the entire surface, wash out with warm carbolic 1.100, dry

with plain gauze, apply tincture of iodine and carbolic acid, or if much hemorrhage the perchloride of iron, the excess of last application wiped away, a strip of gauze is then placed in the uterus, the vagina packed and the patient put to bed.

Cold applications over the hypogastrium for 24 hours, in 48 hours the tampon and gauze are removed and hot vaginal douches given twice daily. The patient should be about in a week or ten days.

In cases with persistent hemorrhage he mentions ligation of the uterine arteries as advised by Fritsch, castration or even hysterectomy but personally he has had no experience in such cases.

Ferguson's Operation for Hernia.

The new operation for berina, by Lanphear, calls forth from Dr. L. W. Hollis in the Texas Medical Journal, a description of an ideally perfect operation as performed by Ferguson, of Chicago.

The operation is described as typical inasmuch as it leaves all the structures involved in the same relationship to one another as they are in the normal subject.

The operation of Ferguson as described consists of a semi-lune skin incision, after dissection down to the external oblique, the external abdominal ring and intercolumn fascia are cut through, separate the longitudial fibres of the aponeurosis of the external oblique muscle directly over the inguinal canal far beyond the internal ring over the internal oblique and up under the skin to a point nearly opposite the anterior superior spine. Dissect the sac carefully from the cord and the internal ring, open the sac, ligate with catgut, cut off and drop back stump, if congenital divide in two, the distal half to form tunic for testicle, the other to be cut away.

If omentum is found in sac it is liberally withdrawn, tied in masse and cut off, the stump is covered with its own peritoneum and returned.

Transplanting of the cord unnecessary, tearing it out of its bed without a single reason to recommend it. The structures should be restored as follows: the transversalis fascia to form the internal ring, to correct the slackness and to make the ring small to fit the cord a suture of catgut is passed around either interrupted or continous, taking care not to injure the deep vessels, the internal oblique and transversalis are now sutured to their normal origin, the internal aspect of Poupart's ligament, the serfaces to be freshened to insure firm union.

The separated edges of the aponeurosis of the external oblique are brought together to form the external ring and the wound closed with silk-worm-gut and horse hair.

The commendable features of this operation are, the different structures in the abdominal wall are placed in their normal relationship, the tying of the sac restores the normal rotundity of the peritoneum. The suturing of the transversalis fascia forms a new internal ring, at the same time obliterating the hernial infundibuliform process.

Sewing the internal oblique and transversalis to Poupart's ligament secures a normal origin for them, they then form a perfect protectlon to the internal ring, cord and canal.

The suturing the external oblique protects the underlying muscles and cord, while the skin-flap covers all.

MISCELLANEOUS.

Death of Charles VIII of France,

Hutchinson, in the Archives of Surgery, says that there can be no doubt in the mind of a surgeon that the death of Charles VIII was due to a linear fracture of the skull with rupture of the middle meningeal artery and ultimate extravasation between the dura mater and bone.

It is related that, wishing to view some sports which were going on in the palace yard, he hurried with his Queen through a dark and unfrequented passage. In doing this he struck his head with great violence against the top of a low doorway. Although somewhat stunned at the time, he went on to see the sports and sat for half an hour conversing with those about him. He then complained of his head and soon became unconscious. After this he recovered somewhat and several times attempted to speak but relapsed and finally died nine hours after receiving the injury. It was supposed by his attendants that he had a fit. But as Hutchinson says, it is well known that an interval may elapse between the blow and the appearance of symptoms of extravasation.

He mentions the case of a young lady who fell only a few feet, striking her head against a stone, although stunned at first she quickly recovered, walked home and sat down to talk with her family, assuring them that she was not hurt. During the meal, however, she suddenly complained of pain in her head and rose to go to her bed room; she soon became unconscious and death followed in a few hours.

He suggests that the torn artery does not

give way at once, but waits until the circulation is fully established. There may be several intervals in the symptoms owing to the temporary arrest of the bleeding. In most cases the artery is not torn completely nor is the dura much detached. Similar delays and arrests in the bleeding from injured arteries are not infrequently seen in wounds of the palm and other parts of the body.

Shall we Bleed in Pneumonia?

Fifty years ago when pneumonia was recognized as a pure and simple local inflammation of the lungs this question would have been decidedly answered in the affimative, says North in the American Medical Compend.

He says that he has been carrying a lance every day for twenty years expecting to find a case of pneumonia when venesection was indicated, but the case requiring bleeding never came to him. And so he thinks that if we will study the effect of bleeding upon the system carefully we must conclude that it is almost never indicated in a disease such as pneumonia.

The mortality from pneumonia depends much more on prostration in the later period than on asphyxia in the earlier stages and the prostration is much more likely to occur when the strength of the patient is weakened by bleeding.

The writer claims that even in the stage of engorgement we may reduce the volume of blood passing through the lungs much better by ligating the extremities or by means of well known therapeutic remedies and then we have the full amount of blood to husband the strength of our patient after the urgent symptoms have passed off. The more urgent symytoms as dyspnea and pyrexia are only temporarily diminished by blood letting at the best, and so the indications can be better met in other less harmful ways. After thirty years spent in the careful study and treatment of pneumonia, the author does not consider bleeding a justifiable measure in this disease.

Can the State Suppress Genito-Urinary Diseases?

Dr. Fred. C. Valentine does not think so and he withdrew from his position assumed twenty years ago, when he ardently advocated the inscription and regular examination of prostitutes.

In a paper read before the section on State Medicine at Columbus, abstracted in the Virginia Med. Semi-monthly, he offers education as the remedy, and lays down the following facts: History shows that illegitimate relations between the sexes have always existed; moralists, theological and lay, could never induce men to abstain; the law is powerless to suppress the vice; men who have suffered most intensely from genito-urinary diseases, expose themselves to new infection even before they are cured.

He suggests that sufficient of the physiology and pathology of the genito-urinary apparatus should be taught in institutions for higher education, to convey to students a knowledge of the dangers of genito-urinary diseases to themselves and to others.

Similar instruction should be given in schools attended by boys at the age of puberty. No man who has ever had gonorrhea should be allowed to marry until it is proven by a physician that he cannot infect his wife.

Regular physicians should be elected by their societies to deliver evening lectures to the public on genito-urinary diseases.

Every father should be taught to warn his sons of the dangers of genito-urinary diseases. When from incompetence or delicacy the father cannot or does not wish to do this, the family physician should discharge that duty.

Every medical society should annually elect its most competent member to write at least one article on the subject, worded for a layman's comprehension and published under the auspices of the society.

Lawson Tait and His Work.

Dr. Joseph Price, in the Va. Med. Semi-Monthly, reviews some of the remarkable work done by Lawson Tait and tells us of the man's character in his home.

He was of the Scottish race of people, superior in his manner and being incapable of disguise or affectation, he let it be seen.

He worked alone in his specialty, his own teacher and master, no one could fully copy his adeptness, the neatness, exactness and completeness of his technique.

McMurtry is quoted in mentioning his contributions to gynecology. He devised the surgery of the gall-ducts, illumined the pathology of pelvic inflammation in women pointing out the part played by the fallopian tubes, the unknown pathology and treatment of extra-uterine pregnancy was made plain.

He was the author of the eliminative treatment of peritonitis by active catharsis.

He substituted the simplicity of surgical cleanliness, sterilization by heat and exclusion from the operative field of infectious material for the cumbersome paraphernalia of antiseptic surgery,

He refused a baronetcy during Mr. Gladstone's last government. He was a man

with many bitter enemies, he was eccentric, naturally pugnacious, always ready for a controversy. His last public act was to take part in a furious and bitter controversy with a well known Birmingham physician.

He had his hobbies, his home abounded in curios which he delighted in showing his friends.

His house was known as the "Stars and Stripes Hotel." When the envies and jealousies which his aggressive career engendered have died out Lawson Tait will be better known and more honored, as only then can his work be estimated at its true value.

Correspondence.

I have just read and re-read the article written by Dr. Ramseur of China Grove on the propogation of typhoid fever and other infectious diseases in the June Journal. While in some points I heartily agree with the Doctor in others I beg leave to differ with him. The study of the subject appeals to every physician who has had to combat this disease in its graver forms. That flies have perhaps in some cases to do with the propogation of typhoid fever we do not doubt but to say that they are the prime cause in villages and small towns we do not think covers the case, for the reason that in all small towns there is no drainage except that which nature provides and again the water supplies of small towns is from wells and cisterns. No care often times is taken in disposing of the excreta of the sick, which in most cases find its way into the surface wells and leaky cisterns. There the germ has the opportunity of development for as the weather is dry the surface water is low and consequently not pure.

Moreover in small towns the closets are not cared for as they should, patients visit the closets before we are aware of their being ill. All this is then carried into springs, surface wells and cisterns from which many take their death draught.

The Doctor also states that the disease ceases as soon as there is an apperance of a hoar frost. This is no doubt true of yellow fever the germ of which there is very little known but certainly hoar frost does not limit typhoid for it is a disease of the late summer, fall and winter. To prove that temperature as to heat and cold does not effect the germ is shown by its activity after having been frozen. No doubt the epidemic at China Grove was caused as the Doctor correctly surmised at first from the defective drainage of the cotton mill and contiguous cottages infecting the wells of the town for in a certain area of country all under ground water connects as do the branch of the small creek and river on the surface. No doubt every one of the wells mentioned were infected and it was the same peculiar condition of ones physical self which allows one person to contract any infectious disease while another with equal surroundings exposed to the same infective escapes which enabled part of the family to escape the infection of typhoid fever from the infected wells. In one case the soil was not suitable for the developement of the baccili, in another it was. We think there is no doubt but that the spread of a typhoid infection is due entirely or nearly so to our defective water supply and drainage.

These conditions furnish the proper soil for infection. In discussing the subject of flies in the connection with the spread of other infectious diseases we must dissent. The Doctor mentions yellow fever, dysentery and malaria. The medical profession we think is not familiar enough with the germ of yellow jack to state positively as to its transmission in all cases but one thing we are sure of that so soon as the cities and harbors of Havana and Santiago were thoroughly cleansed so soon as the abominable Spanish system of no drainage at all were remedied we find yellow fever fast disappearing. Was the outbreak at Fortress Monroe fly borne? We think not. It was simply the negligence on the part of the naval and hospital corps in not properly disinfecting before leaving Cuba and after arriving at Hampton Roads. We were very much pleased with the article by Dr. Ramseur and thank him for bringing out the idea of flies being a factor in the spread of infectious diseases for it is our duty to guard well every avenue of infection possible.

D. R. Neil, A. B., M. D.
Nashville, Tenn.

The International Congress for Tuberculosis.

As far as reports have been made of the proceedings of the International Congress for Tuberculosis held at Berlin in May last, it would seem but little advance was accomplished, either as to prophylaxis or cure of the disease. As it respects the management of it, perhaps some suggestions were made which may prove beneficial, especially to the poorer classes. This consisted in the establishment of sanatoriums in different parts of the country for the benefit of those afflicted with tuberculosis.

It was agreed, however, that it was not

particularly essential to select elevated localities for such institutions, as every thing depended on the proper management of the patients as it respects cleanliness, exercise, diet, &c.

A long argument was made against the use of sprays or inhalants in the treatment of the disease, the main objections offered being, that in the first place, but little of the germicides thus used could reach the locality of the disease; and secondly, they could not be used sufficiently strong to destroy the bacilli without damaging the patient. The Congress was well attended, about two thousand representatives being present, mostly from Germany.

The various countries of Europe, as well as Asia and America, were represented. Our representatives were, Surgeon Boyd and Dr. Nuttall,of the United States Navy, and Dr. Vaughan, of the M. H. Service, and Dr. Schweinetz, of the Agricultural Bureau.

Our Doctors Boyd and Nuttall were among the honorary members of the First Section.

It is to be hoped that some good will result from the conference of such a representative body of the medical profession,

T. B. Greenley, M. D.

Alcohol as a Remedy in Disease.

Among the many scientific items of progressive medicine is to be noted the investigations in regard to the use of alcohol. Formerly one of the most popular of all remedies, prescribed alike, *ad libitum* by physicians, quacks and laymen, given in all forms of disease, to all sorts and conditions of men, women and children, with scarce a thought of its physiologic action, and no definite knowledge of its effects on disease and no apprehension of the possible evils that might follow its use.

But it is no longer King. Like all other creatures, it must come down and undergo the crucial test of scientific research. If it stands this test it will be consigned to its proper place in materia medica. If, on the other hand, (and which now seems most probable if not inevitable) it shall be ascertained, that it is neither a stimulant nor in any sense a food, and hence is lacking in those essential features which could render it of any value as any part of a supporting treatment, then its high claims as a great remedy will be groundless. If added to this it is shown to paralyze the dynamic action of cell life, destroy the leucocytes and thus render the system less able to battle against the various micro-organisms that are constantly seeking an ingress into some of the organs and tissues of the body. If, also, its action is to cripple or arrest tissue metamorphosis or normal metabolism, and thus prevent active and healthy elimination of the necessary wastes that is so essential to life.

If added to this arraignment it shall be fairly understood that the habitual use of alcoholic liquors, instead of preventing disease, does exactly the reverse, that it decreases normal vital resistance, and thus renders the system more susceptible to the inroads of disease.

All these indictments added to the well known and commonly accepted truths of its production and hereditary transmission of various disorders of the mind and nervous system to say nothing of the moral obloquy atttending its use, is it seems to us sufficient evidence to regard the heretofore familiar bottle of whisky or the bottle of the sick room as an agent of an unknown quantity, especially for evil.

Popular beliefs should never bias the judgment of a doctor. For centuries the people believed in witchcraft, and even in this enlightened day all sorts of vagaries are believed in by not a few.

Quack and patent nostrums fill the shelves of our druggists in every town and hamlet, and are eagerly bought and swallowed by all classes of people. Ostcopathy flourishes and fills the coffers of its subtle managers.

Christian science (what a shame) deceives its votaries to such an extent that tender children are sacrificed on her altars by their own parents. Hideous deformity! Less excusable than the Hindoo woman, who, to appease the wrath of a God, tears from her breast her shrieking infant and consigns it to the turbulent waves of the Ganges.

All this goes to prove that error, however gross, finds easy lodgment in the human mind, and is exceedingly difficult of extraction.

There is another fact in this connection. The public mind has access to sources of information on about all subjects affecting the popular weal except medical subjects. Religion, law, politics, ethics, &c., are daily discusssed and widely-disseminated, by the pulpit forum and printing press. Not so with medicine. The science and art of disease and remedy are taught behind closed doors, and to that class of men and women only who are expected to make it their life work. Hence the great masses, however intelligent they may be on other topics, know nothing of the animal economy, the disease to which it is subject, nor the remedies best suited to relieve or cure.

Here, then, is the appology for the credulity of the popular mind—ignorance.

With reference to alcoholic and vinous liquors one other factor has been most patent in the use of this class of remedies. That is they please the palate and are easy to take. Men have always been governed more by appetite than reason. But the physician of to-day and of the near future will not allow popular whims or appetites to bias his judgment. He seeks for truths based on scientific research. To the great laboratories of the world he looks for the flood-light that will expose fallacies, however "time-honored," and with radiant fingers wreathed with hope for sick and fallen humanity, signal to the painstaking physician, "This is the way, walk ye therein."

We hazard the suggestion that the time is close at hand when the medical profession, duly weighing the overwhelming array of evidence against the use of alcohol, will restrict it to a very narrow limit, *if they do not discard it altogethey.*

I. A. MacSwain.

"Extraction of Foreign Bodies, &c."

There is a class of cases which of themselves seem not of the greatest importance, still sometimes prove quite an annoyance to the physician. But in many of these cases where a patient is filled with dim forebodings of chloroform and cutting operations, if one can, by a little manipulation and management accomplish all that is necessary for relief, he can be sent away happy, and will be quite likely to recommend the same physician to all his friends under like circumstances. In those cases where needles especially are introduced into the flesh the patient is too likely to spend too much time in trying to get it out, until it is beyond his reach, and still by a little dexterity, it can sometimes be brought to the surface and extracted with very little if any incision, more particularly where the point can be directed through and out. But it is in cases of accidents with fish hooks that we can sometimes give the most prompt relief. If the point is deeply imbedded it is well to push it through to the surface, cut off the barbed end with a "bone forceps," and withdraw it backwards. If the point is not deeply lodged it seems more convenient to cut off the ring or enlargement of the back end of the hook and push it forward and out. It would seem very well then, also, to apply some little antiseptic solution to the part that is drawn through so that the track of the wound may be disinfected, slightly at least.

Foreign bodies in the ear are often met with, from substances gotten in recently, to some discovered in adult life that have been there from childhood, and perhaps remembered only when they begin to make some trouble by pressure upon the tympanum, or from an accumulation of cerumen. The warm douche is of great service in these cases to assist whatever proceedings are found necessary, especially in those of live insects in the ear, causing them to subside promptly and washing them out of the meatus.

C. E. Whitbeck,

Pittsford, Mich.

Does it Pay to Live?

Dr. Geo. J. Monroe, in the Cinn. Lancet-Clinic, is of the opinion that it does not pay to live, though as to whether it pays to die he does not state.

If we could live in happy childhood all the time he thinks life would be worth living, otherwise it is a loosing business. He says we come into the world helpless and dependent, in fact would starve to death if we were not fed, in childhood come troubles and ills, and we suffer from the cradle to the grave, disappointments, vexations, sorrows and sadness, increasing in arithmetical progression as we grow older.

We can not even cut our teeth without pain, or simply to stump our toe-nail against a rock causes suffering.

Restraints hard to bear come upon us, necessary duties must be done however unpleasant and disagreeable. Lessons and work instead of fun and fishing.

We loose our mother, brother or sister, perhaps left the sole representative of a family.

We live to bury our wife and children, our business burdens and perplexities are more than we can bear, we become bankrupt and broken in health.

Our boys and girls may live only to do wrong and bring our hairs down in sorrow to the grave.

We become physically diseased from exposure in the performance of our duty and spend the balance of our days in suffering and pain.

Old age is useless, oftentimes an encumbrance, passed in some corner neglected, dependent on friends or children who are wondering why we live so long.

The author concludes by asking, "do not the sorrows, tribulations, and trials outweigh our joys and pleasures, and bring down the scales on the side—it does not?" We have had our share of pain and sorrow as a boy, and living then was great. We

have had our share of trouble and affliction as a man and life is greater, better, happier. We will in all probability have our share of the discontent and worry of old age, but feel sure that then the joy of living will be greatest of all.

The thing is, its better to live the best you can whether it pays or not, as it is an open question whether it pays to die, and that is the only way to go out of business.

So we think the doctor should brace up and take a c. c. pill twice a week for a while.

La Grippe—Its Manifestations, Complications and Treatment.*

Professor Grude sees no reason why the intelligent observer need err in his diagnosis of la grippe; he believes that the intensity of the catarrhal symptoms, the great prostration, and tardy convalescence form a typic clinical picture. Though the catarrhal symptoms are usually limited to the respiratory mucous membrane, they are not always so, and in the writer's experience the invasion of the mucous membrane of the digestive tract has been quite frequent. Not alone mucous membrane, but a part or all of the cerebro spinal axis has been invaded.

In many cases the so-called complications are simply an extension and aggravation of the catarrhal or inflammatory condition; thus an extension of the usual inflammatory condition of the throat through the Eustachian tube produces middle-ear complications; the bronchitis, too, may extend and become capillary, or even a pneumonitis may result. So we believe that in the so-called abdominal form with severe gastro-enteric catarrh, it may extend by *contiguity* and inaugurate a general peritonitis. Upon this theory alone can we explain the supervention of a severe general peritonitis in a case under our care, now happily terminating in convalsecence.

The patient was a girl of 11 years who had been seriously ill before. Twenty-four hours after the illness began, she had, besides the usual alarming symptoms of la grippe, a high temperature, wild delirium, constant emesis, frequent and copious discharge of feces and urine. The appropriate remedies were prescribed, the vomiting ceased and she rested; but on the third or fourth day she developed symptoms of peritonitis, abdominal pain, hardness and tympanites, etc. Calomel was prescribed, twenty grains divided into four powders, one every three hours; also the usual turpentine stupes, morphia to quiet pain, etc. The next day, finding no improvement, but rather aggravated symptoms, green vomit, bowels not moved—a very gloomy prognosis was given, and at the family's request a consulting physician was called, who concurred in diagnosis and prognosis, and had nothing more to suggest. On the writer's return in the evening, however, he decided in view of the great mortality of these cases by the routine treatment, to try the local application of a mustard poultice; also, for their germicidal, antiseptic and healing qualities, he gave internally Hydrozone diluted, in frequent doses, alternating with doses of Glycozone. In twenty-four hours there was slight improvement. In forty-eight hours the patient was decidedly better. Improvement continued, and the girl was so well February 21st that she was dismissed as cured.

Perhaps the most common complication in children is the middle-ear inflammation caused by extension of the pharyngeal catarrh up the Eustachian tube into the tympanum. In the case of a child six months old, recently under our care, we had a middle-ear complication; in which the pain was controlled by the usual methods and by the instillation into the aural canal of a few drops of cocaine solution. After suppuration occurred, however, the canal was cleansed by Hydrozone solution (warm), and a piece of absorbent cotton saturated with Glycozone used as a dressing by inserting it into the canal. As the ear complications sometimes prove very serious, it is gratifying to know that in the above remedies we have a safe, speedy and effectual method of cure. We believe also that, if these cases were seen early, by proper treatment the extension and consequent complications might be prevented. In a little girl with severe tonsillitis and pharyngitis we are now spraying the throat with diluted Hydrozone and applying Glycozone with such marked benefit that on this, the third day of treatment, she is almost well.

In concluding Professon Grude states: "I cannot refrain from referring to the case of a prominent city official who had an unusually severe attack of la grippe. All the structures of the nasal cavities were involved in a severe acute catarrh, which progressed to the stage of suppuration. Enormous quantities of pus were secreted, and the location and intensity of the pain led us to fear involvement of the antrum.

*Abstract from the Journal of the American Medical Association, March 25, 1899., by W. W. Grude, A.M., M. D., of Toledo, O. Professor of Physiology and Clinical Medicine, Toledo Medical College, Toledo, Ohio.

However, the free use of Hydrozone solution by spraying, and the application of Glycozone soon cleared up the cavity, and in a few days complete cure resulted."

A Laryngological Clinic.*

We will present four interesting cases. As you will be unable to obtain a good view of the cases from the amphitheater seats I have prepared some drawings illustrating some of the essential points.

Case I.—Mr. A. G. S., age 26 years, clerk; while playing football 10 days ago, sustained a fracture of the infraorbital arch by striking his face against the knee of another player. The arch was broken at the infraorbital notch (Fig. 1), through which

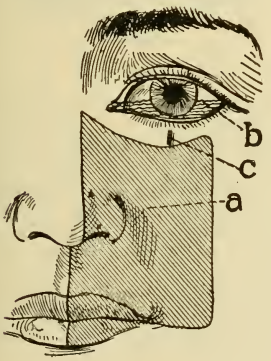

Fig. 1.

pass the infraorbital nerve, the superior maxillary branch of the fifth, and the infraorbital artery and vein. The infraorbital nerve supplies that portion of the face with sensation, indicated by the outlined (a) shaded portion of Figure 1.

Upon pricking the face with a pin we find complete anæsthesia corresponding to the distribution of the infraorbital nerve. The orbital branch of the infraorbital artery must have also been injured by the blow, as the lower half of the conjunctiva (b. Fig. 1) is the seat of a hæmatoma.

It is probable that the ethmoidal arteries were also injured, as occasional clots of blood have discharged from the left nares since the injury. The quantity and frequency of the discharges have gradually diminished. As so long a time has elapsed since the injury but little can be done to hasten the absorption of the conjunctival hæmatoma. Hot applications and massage of the orbital tissues immediately after the injury might have been effective in preventing the formation of the hæmatoma. A mild galvanic current (2 to 4 m. a.) applied to the anæsthetic area for from 5 to 10 minutes three times a week may hasten the restoration of senssbility.

Case II.—Mr. K., age 60 years, inventor. He complains of stenosis of left nostril, and is addicted to the local use of co-

Fig. 2.

caine to keep it open. Upon examination the septum (a. Fig. 2) is seen to be deflected to the left. There is also a large spur (b. Fig. 2) on the anterior portion of the septum on the left side, just beneath the convexity of the deflection.

The convex face of the deflected septum and the spur have been cocained with a 10 per cent. solution. A 4 per cent. solution is usually used in this clinic, but inasmuch as the patient is accustomed to the drug we find it necessary to use a stronger solution to produce anæsthesia. We will now remove the spur with a Bosworth saw, as indicated by the dotted line c, Fig. 2. * * * Having removed the spur we will next remove the crest of the septum with the Bosworth saw, as indicated in Figure 2—d. The Sajos punch will now be used to comminute the septum. * * * This being done the septum will be still further mobilized by fracturing the perpendicular plate of the ethmoid with Adam's septum forceps. * * * We are now prepared to forcibly reset the septum in something near its normal vertical position. This is best done with the index finger introduced into the left nostril. * * * Having removed the clotted blood, we will introduce a Asch drainage tube to hold the comminuted septum in its new position. This tube should be worn for from four to six weeks, otherwise the septum will probably return to nearly its former position. The tube should be removed every two to three days and cleaned. Should there be troublesome hemorrhage iced sprays should be used in the nostril. Should this fail the tube should be removed and a strip of gauze, moistened in the comp. tr. of benzoin, should be packed in the left nares, where it will act as a splint

*By William Lincoln Ballenger, M. D., in the Medical Standard.

and check the hemorrhage by pressure. The comp. tr. of benzoin prevents decomposition of the clotted blood, and thereby makes it possible to leave the dressing in the nostril for 48 hours.

Case III.—Mrs. C. M. H., aged 65. This patient complains of difficulty in swallowing fluids, hoarseness, and a sensation of pricking and scratching in the throat. Upon examination of the pharynx and larynx a diffused redness is seen. When she takes a deep inspiration a pin may be seen (Fig. 3) attached to the under side of the epiglo-

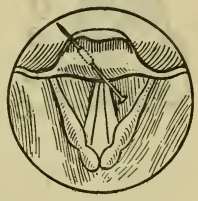

Fig. 3.

tis. Its head is downward and the shaft of the pin thrust through the mucosa and out again, as though done by an experienced needlewoman.

She reports that two days ago she accidentally swallowed a pin. The case is especially interesting on account of the head of the pin being downward and the comparative comfort with which it has been endured for forty-eight hours. We will now grasp the pin with a curved laryngeal forcep and attempt to remove it by pushing it downward, thereby avoiding further inju.y to the mucosa of the epiglottis. * * * Unfortunately the patient attempts the act of swallowing just as the pin is seized. The pin is removed, as you see, but the mucosa is somewhat torn. No especial damage or evil result has been done, however. The subsequent course of the case was without interest; but little reactory inflammation occurred.

Case IV.—This little girl, aged 4 months, is afflicted with syphilitic ozena. The infection was congenital, her father having had the initial lesion two years ago. The first signs of the disease appeared four weeks ago in the form of an acute and obstinate coryza. Two weeks ago there appeared a yellowish discharge which was occasionally streaked with blood. Crusts then began to form about the margins of the nostrils. Four days ago marked ulceration (Fig. 4) and sloughing of the tissue about the margins of the nostrils set in and the mother decided to consult a specialist. Today she applies to this clinic for advice and treatment. The tip of the nose may be readily lifted up, as the skin and a portion of the septum have been destroyed by the gummatous process. This case is of peculiar interest on account of the horribleness

Fig. 4.

of the disease and the utter innocence of the little patient.

The essential facts concerning this condition may be summed up as follows:

a. Syphilis in the father or mother, even under careful treatment, may be transmitted to the offspring for three or four years, or even for a much longer period in some instances.

b. The first signs of the disease usually appear before the second month after birth. In this case the appearance of the disease was somewhat delayed.

c. The earlier it appears the more active the destructive process. The tissues of a young infant do not seem to have the power to resist the poison.

d. The later it appears the more favorable the prognosis.

e. The first signs are those of an acute coryza which is intractable to treatment.

f. It is rare for an acute coryza to develop in a child until it is some months old; hence the appearance of an acute coryza is suspicious of a syphilitic process.

g. Congenital syphilis runs a much more rapid course than the acquired syphilis of adults.

h. If the process is not speedily checked the bridge of the nose will become depressed.

i. The treatment in the early stage should be local and constitutional. The local treatment should be for the purpose of establishing the patency of the nostrils, as the child is unable to nurse while the nostrils are closed. A ½ per cent. solution of cocaine sprayed into the nostrils is recommended by Prof. Bosworth for this purpose.

j. In the later stages the treatment should

be the mixed treatment. As the skin about the margin of the nostrils is very sensitive, a simple ointment should be applied.

Prof. Robert W. E. Bunsen.

The death of Professor Bunsen, which occurred August 16th, at Heidelberg, has removed another of the master-minds of Germany, (Boston Medical and Surgical Journal). Original scientific investigation has suffered severely in the last few years through the deaths of Pasteur, Helmholz, Du Bois Reymond, and now of Bunsen. Such men cannot be replaced, nor, fortunately for the world, can their work be destroyed.

Although Bunsen was not primarily interested in medicine, yet his special fields of research, physics and, notably, chemistry, are coming into closer and closer relation with medical science. We may, in the near future, surely look to chemistry for some of the most striking advances in medical knowledge. It is of interest also to note that like Helmholz, in the invention of the opthalmoscope, so Bunsen has done an inestimable service to medicine in his work on electricity, the properties of certain metalic compounds, and spectrum analysis. His first chemical work was the discovery of an antidote for arsenic. This he accomplished in his twenty-third year. Born in 1811, he spent about twenty years after receiving his degee in various German universities as tutor and professor, and finally, in 1852, went to Heidelberg, where he remained until his death. While at Heidelberg he had built a chemical laboratory, which became, under his direction, one of the most celebrated schools of chemistry in the world. He was a prolific writer on scientific subjects, chiefly connected with chemistry; particularly original was his work on spectrum analysis, which though indirectly, is coming to have a closer and closer bearing upon certain branches of medicine, in connection, for example, with microphotography. In the course of his life he invented some of the most valuable adjuncts of a laboratory, the Bunsen burner being still probably the most indispensable in the hands of a chemist. The battery, photometer and pump known by his name are hardly less useful. It is always interesting to observe how, with all the modern tendency toward specialism, there is likewise a growing appreciation of the interrelation of the great fundamental sciences. As medicine becomes more of a science as a branch of biology we may look for a constantly increasing dependence of the peculiar problems which medicine offers for solution, upon the allied sciences, and, conspicuously, upon chemistry. Men like Bunsen do much to hasten this hoped-for day.

On Divided Attendance in the Care of Children as a Preventive of Gastro-Intestinal Diseases.

Pediatrics claims that several years ago Prof. Heubner, of Berlin, in seeking to reduce the alarming mortality in his infant asylum, made a trial of the following plan in some of his wards. He appointed two nurses for a certain number of children, with the service divided as follows: One nurse had sole charge of preparing the food, cleansing the nipples, feeding the child and cleansing its mouth. The other devoted herself to attention to the napkins, dressing and bathing the child. The carrying out of this idea was intended to prevent any of the intestinal bacteria from gaining admission into the stomachs of healthy children. Prof. Heubner's experiments could not be carried out with proper rigidity on account of certain administrative shortcomings, but he appears to think that this departure was eminently sensible, and that he saved a number of lives by the precautions thus taken. It would appear that this principle is capable of being carried out in private practice in large families, and in particular where foreigners are crowded into the tenements of our large cities. The physician might instruct one of the women or girls in charge of the children to carry out exclusively the directions for feeding, while another's sphere of activity could be limited to laundrying the clothes, changing the napkins and bathing and dressing the children. All ideas of this sort communicated to the public have an educational value,and undoubtedly are able to lead to some saving of life, even if they do not meet with immediate or general adoption.

Queer Life Insurance Case.

One Thomas Chase, says the Med. News, is supposed to have died at Milligan, Tenn,, in February last, leaving to Mrs. Chase a life insurance policy of $30,000. This the life insurance company paid, but through its attorney it seeks to recover this amount, alleging that Chase did not die as was reported, and that a wax figure was buried as his body, that he was probably the victim of a hypnotist who worked in collusion with the beneficiary to secure the insurance money, and who probably spirited Chase away while he was under hypnotic influence.

Surgical Hints.

The Alabama Medical and Surgical Age gives the following advice:

1. Whenever you suspect the presence of severe internal injuries, never allow the patient to get up and go about very soon. It is always of great importance to secure as long a period of rest and quiet as possible.

2. In bony ankylosis there is no pain in voluntary efforts of motion; in fibrous ankylosis there is. In the first, if the physician tries passive motion, the pain is only where his fingers compress the part; in the latter there is pain all over the joint.

3. In any of the forms of chronic superficial inflammation of the tongue it is unwise to use caustics. These agents commonly increase the irritation, such cases showing marked tendencies toward malignant development, and must always be carefully watched.

4. Never treat a severe burn on the flexor part of the joint without applying an appropriate splint to prevent as much as possible the occurrence of contraction. The need of skin grafting is especially great in all burns where the result of contraction would be deformity or disability.

5. In dislocations at the shoulder joint, a rapid test consists in applying a straight ruler to the acromion process of the scapula and the external condyle of the humerus. If it touches both joints at the same time there is dislocation, for normally the deltoid prominence prevents this.

6. In young people complaining of pains and swelling in the neighborhood of a joint, especially about the long bones, examine very carefully to see whether the trouble is in the joint. If it effects the bone itself, the chances are in favor of malignant rather than arthritic trouble. If malignant the development is usually rapid. There are usually glandular enlargements. The tumor is uneven in density, the superficial veins increase fast, and the pain is more or less constant and of a shooting nature.

7. To remove blood from the hands use soap only after washing in plain water.

8. Sweeping and dusting should not be done just before an operation. Cover possible dust collections with wet sheets.

9. In amputations loose muscles retract more than those attached to bone. Hence sever the loose muscles first, so that the ends may be of equal length.

10. If the wound is clean leave it alone; the best surgeons apply but one dressing.

11. Wash out the nasal passage before giving ether to subjects of catarrh.

12. Scalp wounds, if large, should be stitched, but stitches should be removed early.

13. In felon find out if the bone is attacked. Amputation of the terminal phalanx is best delayed until the septic process is overcome.

The Treament of Advanced Tuberculosis.

There are few conditions which appeal to the sympathies of the physician more strongly than does advanced pulmonary tuberculosis, and there are few in which he is so powerless to do the patient much good, (Therapeutic Gazette). There comes a time, however, in the treatment of such a patient when it is the duty of the physician, who is utterly unable to restrain the progress of the disease, to do those things which will render the remaining days of life most comfortable and satisfactory to the patient and his friends and undoubtedly in this late and hopeless period of the disease much can be done to relieve suffering and discomfort.

It is not our intention in this editorial to deal with all the measures which can be used under these circumstances. Personally, we believe that an active normal liquid, or tincture, of cannabis indica, properly used, will very frequently, by benumbing disagreeable sensations and checking cough and improving the appetite, do the patient a great amount of good. The sweats, if they are profuse, can also be controlled by camphoric acid, and diarrhea relieved by pleasant astringent mixtures, while neuralgic pains can be relieved by a local application of menthol and similar substances.

A method which has found some popularity in France is the use of the combination of Hoffman's anodyne, extract of opium and a syrup. Thus Castel prescribes the following mixture, all of which may be taken in twenty-four hours:

> Hoffman's anodyne, 6 drachms;
> Fluid extract of opium, 5 minims;
> Syrup of lettuce, 4 ounces.

One or two teaspoonfuls or more or this may be taken from four to eight times in the twenty-four hours with advantage.

This method of treatment has no particular disadvantage save perhaps that it might tend to produce constipation, which is a disadvantage in those who are not suffering from diarrhea; but it is claimed that it also tends to check night sweats, that it increases the appetite, diminishes the cough and expectoration, relieves the dyspnea and actually increases the weight. Nor is the effect solely to relieve and benumb; by its influence over tissue waste it probably actually aids the patient in maintaining his strength.

There is only one suggestion which we have to add to this, namely, that in those

cases where the opium seems to produce nausea the following day it may be wise to employ morphine in place of the opium, and when the morphine seems to produce disagreeable after-effects to add to the mixture a small dose, say 1.200 of a grain, of nitro-glycerin, which in many cases may prevent the disagreeable after-effects of the opiate.

The Proper Time for Operative Treatment of Adenoid Vegetations.

Hagedorn, in Pediatrics, urges that enlarged pharyngeal tonsils should not be removed for the prevention of troublesome symptoms, but that we should wait until symptoms make their appearance, which of necessity make an operation indispensable. The following indications for the operation of adenoid vegetations are mentioned by him. The time for their removal has arrived when (1) breathing is not perfectly carried on through the nostrils; (2) when throat affections are frequently complained of; (3) when the hearing begins to suffer; (4) when nervous symptoms, as spasmodic cough, enuresis nocturna, headache, aprosexia, make their appearance. The age of the patient, as regards the period of operation, is indifferent; infants at the breast may be operated on as well as older children. Contra-indications are found, as a rule, only in the presence of acute febrile diseases.

Mail Practice.

The Cincinnati Lancet-Clinic says, mail order practice is fraudulent and of the very worst character. Serious sickness cannot be intelligently treated in this way. Every physician knows that, but, unfortunately, the people do not know it. Every man, woman and child in the Nation is in close touch with the post-office department, and whether well or sick is besieged with propositions of cure. Such propositions frequently describe the more common diseases which run a course of several months or years, and then propound a series of ingeniously prepared questions, followed by another series of certificates, mostly written by unknown or dead people, vouching for the financial and professional standing of the would-be curer. Every physician understands the value and the influence of suggestion in therapeutics. This is worked to its limit. Those who are weakened by disease grasp at the suggestive mail solicitor and enter into a correspondence, which terminates in a remittance, to be in turn followed up by other dollars. For a time such susceptible people think they are bettered, and certify to the benefits derived from remedies used, all of which is ephemeral, and a realization of true conditions are certain to ensue.

The country is large, post-offices numerous, and some in every community are sick. The conditions are such that a mail-order business, if well worked, produces large returns. The business is a shameless fraud, and every time consists of obtaining money under false pretenses. It does really seem as though the National Government should protect the people from such a criminal use of the mails. The work can be accomplished. Who will do it? This is perhaps the worst and most extensive form of quack medical practice in America.

Editors Charlotte Medical Journal:

A few days ago a gentleman stepped into my office leading a little boy about four years old, who told me himself that he had swallowed a nail. Naturally he was in a state of mental anxiety, which I endeavored to quiet by telling him that I did not think it would hurt him; that in my boyhood days I had known boys to swallow lead bullets "just for fun," &c. But the little fellow contended "they were round and the nail was sharp." I put him on a strict diet of sweet milk with instructions to watch carefully all his stools. Four days afterwards his mother sent me a nail—sharp wire about 1 inch long—which she said come from him in a hard mass. This is absolutely all that was done and the diet of milk acted precisely as I told her I hoped it would. There were no bad symptoms or pain whatever.

Respectfully,

S. J. Montague, M. D.

Winston-Salem, N. C., Sept. 9th, 1899.

Inseparable Twins.

Toward the end of July a pair of joined twins somewhat resembling the Siamese twins were presented before the Academy of Mediciee of Rio Janeiro, Brazil says the Medical News. They were united by a band of soft tissue at the upper part of the abdomen, posteriorly and laterally. The members of the Academy agreed that an operation for the division of the band seemed feasible. All the important organs of the two girls were fully developed and seemed independent. The operation was attempted July 29th in the presence of many of the most distinguished surgerons of Rio Janeiro. Incision into the band revealed the fact that the kidneys of the twins extended through it and that its division might prove fatal. The operation was abandoned after the exploratory incisions and no evil effects have followed from it.

Those Deadly Headache Powders.

According to the Medical Standard, a coroner's jury in Pittsburg rendered a verdict charging the death of a woman of that city to headache powders, composed principally of acetanilid. This being the fifth case of the kind occurring in that locality within a comparatively brief period, the jury naturally directed attention to that fact, as a consequence of which the pharmacists of Pittsburg and Allegheny City, at a special meeting, resolved to adopt the recommendation of the coroner's jury and in future attach caution labels to all proprietary headache powders or those known to contain acetanilid.

Everyone of the synthetic analgesics is more or less dangerous, but the most unsafe of the list—and unfortunately the cheapest—is acetanilid. Death resulting from the administration of this coaltar derivative in comparatively small doses have been frequently reported, as our readers are aware. A certain percentage of individuals seems to be possessed of a peculiar idiosyncrasy against these synthetics, which, of course, cannot be known beforehand; but a low condition of the organism, and especially a pathologic heart, must always be taken into consideration when prescribing them. Hence the indiscriminate recommendation of this class of remedies for self-administration is to be discouraged, and pharmacists can do no less than apprise the public public of the risk incurred. If dispensed at all, the doses should be small, limited to a certain number in a day and separated by comparatively long intervals. Acetanilid at least should always be combined with caffeine, for its well-known stimulant action, while the presence of an alkali also is supposed to act beneficially.

The Rape Fiend and His Punishment.

The Vermont Med. Monthly has the following to say in regard to this matter:

A certain miserable scoundrel attempted to commit rape on the person of a young lady school teacher at Gasetts, and the subject of his punishment has supplied the lay papers throughout the State with abundant material for discussion. Editor Hays of the Essex Record has been severely scored by his brethren of the pen for advocating the severest punishment possible for the culprit. But we are in thorough sympathy with the views of Mr. Hays and take pleasure in reproducing his last editorial:

"It seems that the judge who sentenced William Andrews, the human scab, to ten years imprisonment for attempted rape upon the person of Miss Alice Brown, the Gassetts school teacher, lived up to the very letter of the law. The judge deserves credit for imposing the sentence he did. The law however, should be revised, and we would suggest that with every conviction and sentence the minimum reward to the culprit be not less than fifty years and the maximum as much more as the judge believes right. In connection with the revision of the law there should be a clause which demands the immediate transformation of the prisoner into a eunuch."

The idea of castrating certain criminals is not a new idea, but this is the first time we have seen it advocated by a layman. We cannot refrain from commending Mr. Hays for his progressive ideas, for we confidently believe that the day is not far distant when emasculation will be a legalized form of punishment for certain crimes. It will settle once and for all the rapist and his whole life will be a constant restraint to those who might follow the same course but for the fate he will illustrate. Further than this we can be sure that the rape fiend is not going to transmit any of his tendencies to posterity, a consummation of no small note.

Cocaine Addiction.

Another case in this city (Chicago Clinic) is reported through the daily press of a young man who became a veritable cocaine fiend simply from the use of one of the numerous "catarrh snuffs" on the market.

What can be said of him who knowingly, yes, maliciously, compounds a remedy and places it on the market containing such proportions of cocaine? Knowing, as he must, that the drug has no real curative effect, and that the relief obtained can be only temporary, and as well that the after results, aside from the formation of a habit, cannot be otherwise than injurious to the membranes, and directly antagonistic to a possible cure subsequently by any legitimate and professionally honorable means.

We are not relieving ourselves, at this time of a screed directed against patent remedies. Such is not the inspiration of these words. But that this particular type of remedy is a most dangerous one, and does deserve our most eloquent and most persistent denunciation, there can be no doubt.

We have more respect for the proprietor of the lowest "grog-shop" than for the manufacturers of these so-called "catarrh cures." The former has at least the credit of telling the world, by the brazen inscription at his door that they can obtain destruction within; while the latter, with serpent surreptitiousness, secures its victim

by the flattery of hoped-for relief. Can anything more despicable be imagined than that a human being, endowed with a certain business capacity, should allow his sordid desire for gain to so far blunt or completely obtund all his sense of right, justice, happiness, honor, sympathy and propriety, that he would suborn all his energies and efforts to the advancement and sale of an article so certainly terrible in its results?

Nor can we entirely excuse from all culpability the druggist who retails the article in question. He is not ignorant of its nature or composition. Though doubtless they ease their conscience by the claim that they do not know the exact formula.

We must, as physicians, lend our efforts to creating a healthier sentiment, even among the druggists. This is an old, old song, I know, and I imagine some of our readers will wish for something fresher. But I do assure you no subject can be more important, or imperative, because, while fraught with dreadful, fearful, awful possibilities, it is yet in its infancy, and can therefore be more easily and effectually throttled. It is a question how much the good exceeds the evil opium and morphine have done. We hope it may never come to be a question in the case of cocaine.

The Floating Hospital.

The Boston Floating Hospital, which for several years has done an excellent work in caring for infants during the hot summer months, will this year fill a more important place than ever before, owing to the lack of accommodation for sick infants in other instiutions, (Boston Medical and Surgical Journal). The West End Nursery and Infants' Hospital has closed its doors for the summer to house patients, and the hopistal on Rainsford's Island, which for a number of years has been a refuge for many babies, will not be opened this year. It is a perfectly well recognized fact that the mortality among infants during the summer in large cities is very great, even if they have the care which a hospital affords. It therefore becomes imperatively necessary that provision should be made for their treatment outside the confines of the crowded portions of the city.

It appears that the managers of the Floating Hospital are making this year a special effort to meet the added demands which will no doubt be thrown upon them. Last year a worse enemy than disease to contend against proved to be humidity and weather conditions generally. Death resulted in a number of cases, which might have been avoided could the atmosphere have been kept dry and cool. The physicians in charge have therefore thought that could a ventilating plant be introduced, through which the temperature could be kept at a constant point, not rising above 70 deg., the efficiency of the hospital might be greatly increased. To this end an appeal has been made for $3,000, which we hope may be forthcoming.

As the hospital has developed, the need of more accommodation for permanent patients has been felt and this year a third ward is to be established for that purpose, increasing the capacity of the hospital by forty patients.

The plan of caring for sick infants by means of floating hospitals has so often demonstrated its usefulness, and our own has already done so much toward the alleviation of conditions met with among infants in summer, that we look with confidence toward its still further development.

The First Aid Package.

The International Jour. of Surgery says:

The value of the first aid package in warfare has now been very amply demonstrated. Its use during the war between Turkey and Russia gave a considerable impetus to its general adoption, and there is no doubt that our last war confirmed, in this respect, the observations already made in other countries. The surgical history of our contest with Spain proves it to be a measure that has now earned for itself a place it can never lose as long as men shall engage in warfare. Dr. Nicholas Senn, before the American Surgical Association, established well-conceived rules for its employment, and described what seems to be an ideal composition of the first aid package. But comparatively little attention seems to have been paid to the use of this device in civil practice, and it seems to us that here, even more than in warefare, lies a most extensive field for its employment. The wounded in that greater war that is now termed the struggle for life will need it as often as those hurt in battle, and we look to its common employment in workshops and factories, and wherever men are congregated in labor that gives rise to the possibility of accident. It is strange to find, in this closing century, that we are still called to treat men recently injured, whose hurts are covered with a filthy magma of chewed tobacco, or with an equally nasty combination of blood clots and spider's webs, or with a less repulsive but perhaps more dangerous dressing of soiled rags. It would certainly be of the greatest benefit if every shop, mill and factory could be supplied with a well-

devised first aid package, the contents of which could immediately be applied while waiting for the surgeon's arrival. These packages should be of approved composition, and every factory could have a few men instructed in their use.

The Destruction of Mosquitoes with Kerosene.

The N.Y. Med. Jour. says, an interesting experiment confirmatory of the efficacy of the plan proposed by Mr. Howard, of the United States Department of Agriculture, for exterminating these vexatious vehicles of malaria, mosquitoes, was recently made in England, as we learn from the British Medical Journal for July 8th. Five drops of kerosene, added to a bucket of water estimated to contain between four and five hundred larvæ, killed them all within an hour, and a teaspoonful killed within a few hours the many thousands contained in the water of a tank of nearly three hundred cubic feet capacity.

Universality of Glandular Tuberbulosis in Children.

Pediatrics thinks the old German army surgeon who expressed to the distinguished Niemeyer his belief that all people have a touch of tuberculosis, would haxe good company if he were living today. Volland, who examined 2,500 school children, found that between the ages of seven and nine years no less than 95 per cent. had indolent, multiple, engorged cervical glands, which phenomenon he holds to be a pure tuberculous manifestation. This percentage becomes rapidly less with each succeeding year, until in adult life the number of individuals who present the phenomenon is comparatively small. In other words, the vast majority of children suffer during one period of their lives with a form of tuberculosis essentially benign and self-limited. Blos, of Heidelberg, on the strength of these findings of Volland and others, scouts at the idea of the diffusion of tuberculosis by inhaling infected air and drinking infected milk, and returns to the old view that gland scrofula almost always precedes phthisis; so that one who develops consumption is self-infected from his own tissues. At the recent Congress of Tuberculosis, at Berlin, several distinguished pediatrists agreed that the most direct and certain method of arresting the spread of tuberculosis, was to treat scrofulous children in seaside sanatoria; whence we infer that they hold views akin to those of Blos and Volland. If practically all children have gland scrofula in a more or less benign form it is a simple and most natural hypothesis that the weaker among them suffer later from pulmonary tuberculosis from autoinfection. We suggest that the profession set about confirming or denying Volland's alleged discovery without delay, by investigation of the cervical glands, in connection with autopsies upon children.

How English People Ate Two Centuries Ago.

At the present time the English people are greatly given to eating, (Modern Medicine). Three meals a day, though sufficient for the average American, only serve to whet the appetite of the Englishman, who demands at least two and sometimes three meals additional. The custom of taking a bite "every few minutes," which to the newcomer seem to be the great habit in England is in the highest degree detrimental to the integrity of the digestive organs, besides encouraging excessive alimentation, which Sir William Roberts pointed out as one of the serious evils which threaten the English people.

The modern English custom, however, is quite different from the habits of the men who laid the foundation of the noble empire upon which the sun never sets. According to Thomas Tryon, of London, a "student in physics," who wrote in 1691, in his "Wisdom's Dictates, or Aphorisms and Rules, Physical, Moral and Divine, for Preserving the Health of the Body, and Peace of the Mind," the proper times of eating, so regarded at that time, were "8 to 9 in the morning, and 3 or 4 afternoon," and also admonishes those who would eat wholesomely and long, in the following excellent words:

"Let your Food be simple, and Drinks innocent, and learn of Wisdom and Experience how to prepare them aright.

"Moderate Hunger cleanseth all the Vessels of the Stomach, makes the Spirit brisk, and puts new thoughts into the Soul, rendering a Man fit to give the Lord thanks for all his Blessings."

The Pacific Medical Journal says that there is in London an institution known as the Free Home for the Dying. It is absolutely free, and the only passport to admission is a medical certificate to the effect that the applicant is believed to be dying. No distinction as to nationality, age, sex or creed is made. During the year, forty-eight patients were admitted; of these thirty died, nine were discharged, and nine remained.

Liquid Air.

Liquid air is believed by some to have great promise of therapeutic worth, says Merck's Archives. The editor of a prominent Philadelphia publication sums up his anticipations of its possible value by saying that a great need would certainly be met if by means of a small amount of liquified air the temperature of living apartments could when desired or needed be reduced a given number of degrees and kept at a suitable level. Means for increasing the atmospheric temperature are not wanting, but a reliable means of reducing it has yet to be demonstrated. We hope that liquified air may meet this need economically. It is said that the new liquid has been employed in the treatment of carcinoma with good results, although it is difficult to see how it can act other than as a cauterant, exactly as intense heat operates. It is to be feared that not much can be hoped for in this direction, nor in the treatment of tuberculosis, despite the fact that liquid air may, as it is claimed, be a germicide, as high degrees of heat are. Agents capable of exercising a destructive action on pathogenic bacteria in the body are unfortunately, as a rule, equally capable of exercising a similar action upon the tissues of the body. That liquid air is a local anesthetic we would be prepared to believe from a knowledge of the influence of intense cold; but that it has advantages over other agents in this connection has yet to be demonstrated, From the medical point of view, liquefied air has not yet evolved beyond the experimental stage, and it would be premature to discuss even its possibilities.

Death Rate in Tuberculosis.

Dr. Kohler, in his paper on tuberculosis, at the International Congress at Berlin for the prevention and cure of tuberculosis, (The Sanitarian), states that in Germany phthisis pulmonalis is responsible for 2.25 and, including various other diseases of the respiratory tract, which he considers generally due to tuberculosis, for 4.9, out of a total mortality of 21.8 per 1,000 annually. Of the various countries of Europe, England, Belgium, the Scandinavian countries and Italy, show the lowest, and Russia and Austria the highest mortality from consumption. In England the actual death rate is only 1,358 per million. as against nearly 4,000 in Russia. Of the fourteen largest civilized cities in the world London has the lowest mortality from consumption, with the exception of Naples and Buenos Ayres, the highest mortality being shown by Moscow, St. Petersburg, Vienna and Buda Pesth. Statistics fail to show that elevation above the sea level has any effect on the spread of tuberculosis, but the percentage is higher in towns and industrial districts than in the country. Tuberculosis is more destructive to males than females, and, compared with other diseases, is responsible for the largest number of the deaths that occur between the ages of twenty and thirty.

Christian (?) Science.

The folllowers of this fad must be gloating over the publicity which has latterly been given, says the New Orleans Medical and Surgical Journal. To what extent their procedures of high-handed manslaughter may be carried will be determined only by the degree to which the public can be bamboozled. What that degree may be we can only surmise. Every fad runs its course, and it then either dies a natural death or else gives place to some new variety of the same class of sensational expedients.

Just at this stage of civilization, the United States has developed into a very nest of fakir health systems and disease remedial concerns, which are regulated by the price people are willing to pay to be gulled.

The "cult" of Christian scientists appeals more largely to the emotional in the human kind than the more evidently commercial sorts of quackery and charlatanism, but the public has not yet seen behind the scheme of its working.

The medical position is itself largely responsible for the existense of such institutions, chiefly because of their lack of unanimity in the effort and endeavor to suppress them.

The physician from his position in the social and intellectual community can be and should be an educator. We are too prone to sit calmly by and wait for the genesis and exodus of these parasites on our birthright and meantime suffer the bitterness of reproach, reflection and, by no means least of all, the discounting of our services and ability.

Christian Science must burst its little bubble of notorious popularity, and it looks as if the criminal court would be the means by which this demise should occur. The very insanity of their creed, which etherializes substance and materializes spirit, must appeal to thinking minds, and for the rest, the following of such a will-o-the-wisp, they must find a consignment to the insane asylums, the State penitentiaries or to the pity of the charitably inclined.

The Lungs of a City.

According to the N. Y. Med. Journal a large city, like a human being, needs lungs. The lungs of a city are its open spaces where trees and shrubs inhale carbonic air and breathe out oxygen, thus reestablishing the balance for animal and vegetable nature. Beautiful as is Central Park, New York as a whole is inadequately supplied with lungs. The city has extended enormously within the past few years, and that is an excuse for the errors of the past; but what shall we say about the future? Up Amsterdam Avenue are tracts of land on either side, even yet a primitive woodland. These lands are for sale, presumably for building purposes. Surely, before the fullness of citydom reaches this district, the city should secure to itself park space, instead of waiting until the growth of the city in that direction renders it impossible without paying "fancy" prices in order to establish another Central Park. There is a "coefficient of life" possible for a given area of ground. As the animal increases, the vegetable decreases *pro rata*, and *vice versa*. New York has made many mistakes as regards its possible future development. Let it take care that it does not add yet one more, and that a very serious one, to the list! Let it secure patches of woodland wherever it can within its boundaries, and so get its necessary "lung power" cheap!

A Grave Mistake.

We are surprised to find in so formal a publication as "The Philadelphia Medical Journal," June 3, 1899, an anonymous and wholly ill-advised diatribe concerning Dr. John B. Murphy's procedure in pulmonary surgery. The gratuitous and palpably scurrilous nature of this wanton satire, apart from the journalistic cowardice of the pseudonym "Medicus," is enhanced by the fact that, after the lapse of nearly a year, its anathema was diligently circulated during the recent sessions of the American Medical Association at Columbus, the animus prompting its free distribution being discreditably palpable.

There is a possibility in philippics of this kind of proving too much, and, as has been well said, "he who misrepresents what he ridicules does not ridicule what he misrepresents."

Dr. Murphy's reputation is too firmly established to suffer detriment from insidious attacks like these, which, in their breach of candid and professional courtesy alone, carry with them their own condemnation, and reflect little credit either upon the anonymous writer or the editor who countenances his covert cowardice.

The gross intemperance of the author's style and the unspeakable coarseness of the metaphor drawn from a most dubious source—"a sallow old campaigner," etc.—are noticeable merely as symptoms of the writer's mentality.

With regard to the strictures upon the publicity given to Dr. Murphy's views, for which he is absurdly held responsible, it must be said that it is beyond reason to expect that the community at large should not welcome with avidity any medical or surgical procedure which suggests mitigation of so dread a malady as tuberculosis.

The deliberations of learned physicians both in Eurobe and America, justify the widest comment in the daily press; and it is simply fatuous to stigmatize as vulgar advertising information upon which the welfare of humanity so largely depends.

We cannot but regret that so reputable a publication as the "Philadelphia Medical Journal," aspires to be should have lent its columns to what we believe every ingenuous reader will regard an underhanded and unwarrantable breach of professional etiquette. The paraphrase of the famous exclamation of Madame Roland quoted by the anonymous author of the screed may justly provoke the retort: "O liberty of speech, what follies are committed in thy name."—*Medical Standard.*

A Widow's Right to Her Husband's Body.

On June 29th Justice Bischoff, in the Supreme Court, handed down a decision respecting a widow's right in the body of her husband, says the Boston Med. and Surg. Jour. The case was that of Mrs. Mary Buchanan et al. *vs.* James D. Buchanan, an action for replevin and damages in the amount of $5,000. The plaintiff is the widow of Dr. Alexander Buchanan, who died September 2d, 1896. The body was interred in Greenwood Cemetery by the brother of the deceased, James D. Buchanan. Mrs. Buchanan was not consulted as to the disposition of the remains, not having lived with her husband for nine years previous to his death, and having an action for divorce against him pending in the courts at the time of his death. A year after his death she brought the action for possession of the body and damages for its unlawful detention. In the trial of the case, in which a jury was dispensed with by consent, the evidence introduced and uncontradicted was to the effect that just before his death Dr. Bachanan extracted a solemn promise from his brother, before a number of witnesses,

that he would never allow his ashes to mingle with those of his wife, In his opinion the judge said that while it had been generally stated that there could be no right of property in a dead body, still it was recognized that there exists a personal right in husband, wife or next of kin to have the custody of the remains of the deceased relative for the purpose of burial, In this case, however, there was no question that husband and wife were divided in life, and it was the expressed wish of the deceased that they be as fully divided in death. Judgment was, therefore, ordered for the defendant on the pleadings.

About Urotropin.

By Dr. Knust, Neustadt, West Prussia.

Urotropin has lately been introduced into the therapy of renal and vesical diseases, and possesses the faculty of dissolving uric acid (probably by the formation of formaldehyde, which is found in the urine after its administration) and of sterilizing the urine, It is therefore a disinfectant which may be used in cystitis, pyelitis, and other similar diseases.

Knust has employed it in several cases of excitable and more or less unmanageable mental disease suffering from these affections, and with the most excellent results. Especially brilliant was its action in one periodic case, with persistent excitation, in which at the beginning of the attack the urine was still acid, but faintly cloudy, and got more and more turbid, and more and more loaded with mucus, pus, and micrococci as the seizure progressed. The prostatic hypertrophy and the patient's excited condition rendered catheterism and lavage impossible. He was, therefore, on February 23d, ordered to take Urotropin in 0.5 gram ($7\frac{1}{2}$ grains) doses four times daily. Even in two days the urine was improved, and by March 3d it was faintly acid and clear. For a time his condition got worse again each time that the Urotropin was stopped; but by June 10th it could be discontinued. The patient's weight has greatly increased since he has been on the Urotropin.

The second case was one of senile dementia with a high grade of prostatic hypertrophy, and incontinence of urine to such an extent that the odor of the patient was extremely foul. Here the Urotropin gave results similar to those of the first case, and more especially lessened the unpleasant odor from which the whole ward was suffering.

In a third case there was an equally rapid if not permanent effect.

*Abstract of a paper read at the Sixth Session of the North-east German Psychiatric Union, held at Westerplatte near Danzig, July 3, 1899; from the Pyschiatrische Wochenschrift, No. 16, July 15, 1899.

Healing by First Intention.

The paper contributed by Dr. Kocher at the recent meeting of the American Surgical Association seeks, among other things, to draw a golden mean between the use and the avoidance of gloves in the performance of surgical operations, (International Journal of Surgery). This golden middle way consists in avoiding touching with uncovered hands any infective or septic material between the operations, or washing it carefully away at once; the nails must be cut away as short as possible; the hands must be thoroughly brushed with hot water, soap, and alcohol. No poisonous disinfectant is to be touched before operating, and gloves of cotton, silk or rubber are to be used for handling all ligature materials, and when the tissues are to be much torn or the fingers have to be rubbed in the depth of the wound.

Such, according to the distinguished Swiss surgeon, are the methods of protecting the hands which are most likely to be followed by union by primary intention. The gloves, which may be termed penetrable, such as the silk and the cotton ones, are necessarily of a nature which affords less protection than that given by rubber gloves. As they are penetrated by the fluids, they may easily wash off into the wound any septic matter remaining on the hands. The impenetrable gloves, *i. e.*, the rubber ones, are far better in that they prevent all communication of the operator's skin with the tissues he is operating on, bnt even with them infection is possible if they are punctured. The moral is obvious; the hands must be cleaned as thoroughly as possible, whether we use gloves or not.

Breathing.

Enough cannot be said of full, deep breathing, (The Chicago Clinic). It is no hobby or wild notion, but if you would prove its benefits, practice it daily, and you will increase the circulation, purify the blood, and send it rich and hot to warm the feet, make ruby lips and plant roses on the cheeks. It will aid your digestion and give you a clean, sweet breath, promote sleep, quiet the nervous system, strengthen the throat and vocal organs and increase the chest capacity. It will also cure your asthma, catarrh and bronchitis and prevent lung trouble.

A Substitute for Sugar in Diseases.

Notwithstanding the large number of remedies brought forward from time to time for the cure of diabetes, the dietetic treatment still continues to occupy the most important part in the management of this disease. In view of the fact that in severe cases the use of starches and sugars is absolutely interdicted, much ingenuity has been exercised in devising substances which would replace these foods. While the attempt to produce substitutes for starchy foods have not been very successful, much has been accomplished in the discovery of artificial sweetening agents, which enable the patient to gratify his craving for sugar, without producing the harmful effects of the latter. Among the sugar substitutes sycose represents the latest stage in the evolution of a perfect product of this kind. It has a sweetening power 550 times greater than that of cane sugar. Owing to its chemical purity, its freedom from the inert matter found in other substitutes for sugar, its pure taste and solubility, it is eminently adapted for medicinal use. Sycose is therefore well worthy of a careful trial in the treatment of diabetes and of all other diseases in which the use of ordinary sugar in any form is contra-indicated.

Newspaper Semi-Medical Advertisements

The Colorado Med. Jour. says, that Mr.. Charles Ford of the Rocky Mountain Druggist is always positive and always right. In commenting upon the nasty semi-medical advertisements appearing daily in the daily press of Denver he has the following pungent paragraphs:

"The holiday editions of Denver's great dailies are a sizzling slough of nauseating obscenity, with a panorama of bawdy illustrations. They certainly would never be received in the mails if the government's attention was called to them.

"The 'lost manhood' department of a daily paper is its most prolific source of revenue. The 'depraved womanhood' department is probably not far behind.

"The publisher of a newspaper is looked upon as the main reliance in every undertaking seeking public favor. He not only places his columns at the disposal of enterprising merchants but he counsels and advises with them as to the best manner in which to present the claims of the advertiser. Many of the advertisements in a paper are written in toto at the newspaper office, especially the medical and assignation notices. The publisher is, therefore, in close touch with his advertising patrons and receives a liberal share of the proceeds of every business which he so materially contributes to the success of.

"The painted creatures who ply their vocation in the highways after nightfall or in apartments from which is displayed a massage banner are not more depraved than their partner in sin, the publisher.

"Every medical notice in the secular press for which a price is charged is a tissue of lies written by a quack with just medical education enough to use the vocabulary in a way to attract the unsophisticated unfortunates, who at first may only nibble at the specious bait, but in the end will be finally landed for a large sum.

The most casual reader of a daily paper must be convinced that there is nothing outside the confines of hell too damnable for a newspaper man to co-operate and connive for the propagation of.

"It is painful to see the number of pharmacists, owners of down-town stores, who have gone into the 'lost manhood' business and affixed their names to quack advertisements too filthy to be read in a bar-room. Men who stoop so low for lucre have certainly forfeited all claims upon decent associations and patrons."

The Practice of Medicine.

Occasionally, says the Ala. Medical and Surg. Age, we come up with an editor of a newspaper who has a correct view about some medical matters, and has good common sense, and common honesty enough to speak out in plain language his convictions on the subject. A recent issue of the New York Tribune contains the following:

Let us leave in abeyance for a moment the general question of the efficacy of so-called "Christian Science." Let us recognize that opinions differ as to its scientific character, and as to its Christian character, and as to whether it ever does any good. The present point of consideration is its legal standing under the laws for the regulation of the practice of medicine. Christian scientists have all along contended that they are not amenable to the law, because, as they do not administer drugs and do not charge fees, they do not practice medicine. We observe that a coroner in Philadelphia sustains that view of the case, and charged his jury the other day to that effect.

That contention is a paltry quibble. So far as the charging of fees is concerned, it is perfectly well known that Christian Scientists do in some cases charge regular fees, and in many cases, whether they charge them or not, receive them. Moreover, many regular doctors of medicine treat patients free of charge. Are they not practicing

medicine when they do so? Is not the practice of medicine conducted at dispensaries and in the free wards of hospitals? Are we solemnly to assert to prescribe ipecac and charge nothing is not to practice medicine?

So far as the other point is concerned, relating to the administration of drugs, the quibble is equally obvious. The practice of medicine does not mean the giving of drugs. It means the healing of ailments by whatever means. The doctor who tells the patient to take more exercise, or to eat less meat, or to wear flannel, practices medicine in so doing just as much as though he prescribe quinine or blue pills. Every man who knows the meaning of English words, knows that to be the case. What, then, is the use of saying that Christian science is not the practice of medicine simply because it administers no drugs?

To do so is to plead the baby act, or to assume that all men are fools. It is time to stop such nonsense. Christian science ought to stand on its own merits, and be responsible for its doings, in an honest, straightforward fashion, and not try to shield itself behind a disingenuous quibble.

The Relief of Chest-Pains in Tuberculosis.

Dr. A. W. Beketoff (American Journal of the Medical Sciences, August '99) has made use of Heroin in the treatment of twenty-five patients suffering from tuberculosis, in dose of one-tenth of a grain in powder or pill. In about fifteen minutes after its administration cough ceases and sleep is possible. The respiration, especially when increased by coughing or pleuritic pain, is slower and deepened. In case of disease of the heart, or oxygen-hunger from encroachment upon the respiratory area (large cavities) this remedy is of little or no value. It has but little influence upon the circulation as regards either frequence or fulness, further than that respiration is benefitted. It relieves chest-pain, and so favors sleep. Insomnia due to mental excitement is not markedly relieved. It is well borne, even if digestive disturbances exist. It is indicated in the treatment of hæmoptysis because of its beneficial action on cough. Patients do not become readily accustomed to its action, and it may be administered for a month without necessity arising for increase of dose.

Little Mike: "Phwot is a contortionist?"

McLubberty: "Hear thot, now! Begorra, ut looks as if yure schoolin' was doin' yer moighty little good. A contortionist is a man thot char-r-r-ges more than th' lawful rate uv interest, d' yez moind?"—*Judge.*

Antiseptic Note.

From the Chicago Clinic:

"Sare," he cried, "you ar-r-re no zhentleman!"

The hot blood dyed the officer's brow.

"Sac-r-re!" he hissed; "do you know who eet ees zat you insult?"

"Pouf?" cried the civillian; "I do not care,"

"Do you veesh to fight?"

"Yes. Now and at once."

"Do you not know zat I am one of ze best swor-rdsmen in Fr-r-rance?"

"No. It makes no deeference."

"And do you want to die now?"

"Yes. Right now."

There was a moment's silence.

"I would gladly keell you," said the officer, "but eet ees not possible at zee pr-r-resent moment."

"Not possible. Why not?"

"Because I vill nevaire consent to fight wiz swor-r-rds zat are not pr-r-roperly r-r-rendered antiseptic. Bonjour, monsieur."

Quinine in the United States Army.

The Medical News says that more than one hundred and twenty-five million grains of quinine have been taken by United States soldiers during the past year. It is said that some of the military patients in the army hospitals in Cuba and Puerto Rico took as much as three hundred grains a week during several weeks. Hardly any of those who were in service in the West India islands failed to take some quinine during their stay. A military correspondent writing from Puerto Rico recently said that practically none of the soldiers had been entirely exempt from malarial disturbances on that island and that while the malaria was usually not severe it was very obstinate.

Big Words to a Small Witness.

A young lawyer from the North (The Sanitarian) on beginning practice in Virginia, in the sixties, questioning a colored witness, asked:

"Did the defendant knock the plaintiff down with *malice prepense*?"

'No, sir; he knocked him down with a flat-iron."

"You misunderstand me, my friend; I want to know whether he attacked him with any evil intent?"

"Oh, no, sir, it was outside of the tent."

"No, no; I wish you to tell me whether the attack was at all a preconcerted affair?"

"No, sir; it was not a free concert affair—it was at a circus."

The Sulci Vaginalis.

In the virgin or healthy mulipara the lateral grooves of the vagina are more or less difficult to demonstrate, (Woman's Medical Journal). They are situated in the lower third of the vagina latero-posterior and separate the lower third of the posterior vaginal column from the lateral columns. Functionally they are the line of attachment betweeen the vagina and the deeper tissues, supporting and holding in place the lower portion of the vagina. These grooves approach each other as they near the posterior commissure, their junction forming the apex of a triangle, the base of which is directed upward and is lost in the general contour of the vaginal wall, The triangular space between them constitutes the posterior vaginal column, (lower third,) and which in multipara usually points forward because of subvinvolution.

In primipara, as pregnancy advances the vaginal walls become turgid and swollen, the posterior vaginal column becomes prominent and the sulci are seen as well defined and deep grooves. These sulci are of special interest in the practice of obstetrics, as they are frequently the site of lacerations, especially in primipara, where the head or shoulders are delivered, imperfectly rotated, as frequently occurs in out-let forceps delivery, the operator failing to recognize or correct the faulty mechanism. The tear is often deep, and does not include the outside or perineal integument, and especially so if turned on one side only. The tear being in the sulcus, it does not pass through the "perineal body" but to one side of it, giving a lateral deviation to the thicker and more dense tissue.

Careless inspection gives a diagnosis of "no tear" and leaves the laceration to form a pocket into which the lochia and other vaginal discharges, that may be septic, gravitate for retention and absorption. The patient while not ill, does not do well. The tongue is flabby and coated and the temperature keeps above the normal mark, varying from 99 deg. F. to 100 deg. F. for several days. In the absence of a cervical laceration, in which the symptoms are quite similar, such a pocket will usually be found. When found the surface of the wound should be thoroughly cleansed and treated with Tr. Iodine or Argent. Nit 3ij to 3 of water. This sears and contracts the relaxed condition of the tissues involved, and closes them against further absorption. Healing, which must take place by granulation is also promoted by this treatment. Further retention of vaginal discharges must be prevented by careful irrigation to secure a good result. The tear frequently heals with good approximation of the parts, with little or no trouble. But when it fails to so heal a fossa of cicatrized tissue is the result, and which imparts more or less deformity to the parts.

When both sulci are the site of laceration, one is usually deeper and extends higher onto the vaginal wall than the other. The two rents usually unite at the posterior commissure and extend through the perineum to or into the spincter ani, forming a y shaped wound. Frequently the space between the arms of the y are torn from its bed, leaving a triangular flap, retracted and with curled edges to deal with. It is generally held that the proper treatment of these lacerations is immediate repair, but the results are not always satisfactory.

Tubercular Infection through Bad Teeth.

Sure as fate is the fact that the older the world grows the more it learns, says Med. Council. Not nearly as well known as it should be is the fact that many decaying teeth lodge tubeacle bacilli, which eventually pass through the lymph channels to the cervical lymphatic glands, causes these to enlarge, and eventually passing to the pulmonary apices, there to begin the final process of killing the careless patient who lacked the wit (or possibly the money) to have his teeth properly attended to. The evidence is quite satisfactory that some tubercular infections have their origin in this way. The moral is that bad teeth should be looked after, and inasmuch as teeth may be bad without being noticeable to their owner, a proper mouth inspection by a competent dentist at half yearly intervals is wise, economic and safe.

At the meeting of the British Medical Association held in Montreal in 1897, a very prominent physician of London, England, who was examining the exhibit of Nebulizers, Air Compressers, etc., made by the Globe Manufacturing Company, remarked to a friend, "The Americans are away ahead of us in these lines." Globe Nebulizers are extensively used the world over and have long been recognized as the standard instrument of their class.

A number of new styles have been brought out recently, both in single and multiple nebulizers and combinations with air receivers, tables, etc. No physician can afford to be without one of these outfits, as they are of inestimable value in the treatment of diseases of the nost, throat, middle ear, bronchial tubes and lungs.

Full particulars will be furnished on application to the Globe Manufacturing Co., Battle Creek, Mich.

A Severe Case of Puerperal Sepsis Treated By Antistreptococcus Serum and Unguentum Crede—Recovery.*

A. McC., twenty-one years old, a primipara, was admitted to the hospital at 4:30 P. M., January 3, 1899, in the first stage of labor. The vertex was presenting, R. O. P., above the brim.

She had a fairly long first stage—twenty-one hours—and gave birth spontaneously to a child weighing seven pounds and eleven ounces.

The placenta was partially adherent and came away incompletely by expression. She was bleeding furiously. The patient had had a leucorrhœa during pregnancy, with symptoms of gonorrhœa, and there were small chancroidal ulcerations just inside the vulva on the right side.

There were two indications to empty the uterus—retained secundines and hæmorrhage. Yet there was the danger of carrying infection from these ulcerations into the uterus. This risk was taken, and, after thoroughly emptying the organ and giving a hot douche, the bleeding stopped.

After delivery the patient's condition was not good. She was restless and pale, pulse 150. She responded, however, to stimulation, and the next morning was in fairly good shape, except for a tender fundus. On January 6th, her third day, there was some odor to the lochia and the temperature was 100-2 deg. F. in the afternoon. She was ordered creolin douches for the vagina three times a day.

January 7th, at 2 A. M., the patient had a temperature of 102-8 deg., F., and her pulse was 136. At 9.45 A. M., she had a severe chill, followed by a temperature of 103-2 deg., F., pulse 160. She was then given chloroform and examined. There was a small abscess in the left vulvovaginal gland. Some excoriations of the vagina and tears of the cervix were covered by a black slough in some places and a yellow exudate in others. A foul discharge exuded from the os. The abscess was opened and cleaned. The vagina was douched. The uterus was thoroughly curetted, douched, and packed with iodoform gauze. Some foul *debris* had been removed. She was in very bad shape during the operation; the pulse was between 180 and 200. She was actively stimulated. This manipulation was followed by a severe chill and a temperature of 104-5 deg. F.

On the next day, January 8th, the gauze was removed and the uterus douched every two hours with normal salt solution. Chills occurred on this day, and the following one also. Then intra-uterine douches every six hours were started. She was getting vigorous stimulation and nourishment was forced.

On January 11th, the eighth day, she showed phlebitis of the internal saphenous vein near the left knee.

On January 12th three small abscesses from hypodermic injection in the left gluteal region were opened and packed She now seemed to improve till the thirteenth day, when the temperature dropped to normal, only to be followed by a severe chill.

Chills now started and occurred once or twice a day. She was getting pyæmic. But repeated examinations failed to find a localized suppurative process. The abscesses of the thigh were healed, the phlebitis was well, and there was very little discharge from uterus and nothing palpable in the broad ligaments. The intra-uterine douching was therefore discontinued. Chills occurred just the same. She looked very badly, and death was expected at any time. The pulse after the chills rose to 160-170.

On Jauary 23d, her twentieth day, a culture was taken from the uterus and examined by Dr. W. H. Park. No streptococci were found, but only a short bacillus, which seemed likely to be the colon bacillus. Blood taken from the right median basilic vein and planted by Dr. James Ewing gave no growth. Thinking that the infection might have been from the streptococcus at the start, and the condition of the patient being so poor, we thought it wise to try the antistreptococcus serum. That of the New York board of health was used. At 1 P. M., January 23d, ten cubic centimetres were injected into the back. The temperature fell to normal, and stayed so for six hours, when another chill occurred.

She was given ten cubic centimetres of serum twice a day till January 27th—nine injections altogether being used. There was no improvement, however. On this day, her twenty-fourth day, she was still in very poor shape, yet we were surprised at her vitality. The physical examination showed nothing positive. Her lungs seemed normal; the heart's action was feeble, irregular, and intermittent; a systolic murmur was heard over the apex and the rest of the cardiac area. The liver and spleen were large. The abdomen was boggily distended. No tenderness. No masses were felt.

*James D. Voorhees, A. M., M. D., Instructor of Obstetrics at the College of Physicians and Surgeons; Resident Physician of the Sloane Maternity Hospital.

The uterus was astonishingly well involuted, not tender, freely movable, with very little discharge; otherwise the examination was negative.

Diagnosis.—Possibly malignant endocarditis. Hers was not considered a case for laparotomy—in fact, she could not stand such operation.

Having read of the good results of silver salts in other kinds of infection, and also the remarkable case of puerperal sepsis of Dr. S. S. Jones, read before the New York Academy of Medicine, and published later in the Medical Record, February 11, 1899, we thought it worth while to make a trial of this treatment. At 2 P. M., a drachm of unguentum Crede was rubbed into the right groin. Another drachm was used at 10 P. M. The patient seemed to improve immediately. She had no further chills for three weeks. This treatment was continued thirty-four days. It did not effect a cure, for in this time the patient had a number of complications. On January 29th she had a pulmonary infarct of the left chest with considerable pleurisy, requiring morphine and strapping.

On February 10th the small joints of the hands and feet, the wrists, elbows, and shoulders, the ankles and knees were red, tender, and swollen—very painful on motion. There was a popular erythema of the extremities. Splints were applied and morphine was given for the pain. The next day the temporo-maxillary joint was involved. There were no chills nor was there any exacerbation of the temperature. The patient looked deathlike, and her recovery was given up. On February 15th, however, she was much better and the splints were removed. She looked astonishingly well and felt hungry. The temperature was much lower.

On February 27th, her forty-fifth day, the temperature was 105-6 deg. F. in the rectum. Complete examination was negative, except for a large tender tumor in the lumbar region. This was probably the kidney. Analysis showed the urine to be acid; specific gravity, 1.020; a trace of albumin; five per cent. of pus.

Chills followed for two days.

On February 20th the tumor was smaller and less tender; twenty per cent. of pus in the urine. The temperature now rose for a short period each day till March 4th. The rises were probably due to the retention of pus in the kidney, as the tumor was larger from time to time and there was an intermittent pyuria.

On March 1st the use of unguentum crede was discontinued.

On March 8th she had her last rise in temperature, 102.8 deg. F.; no pus. Aftre this the kidney was not palpable, and theer was very little pus in the urine. She was now gaining rapidly. She got up out of bed March 11th, and was discharged March 23d in first-class condition, eighty days post partum.

Diagnosis.—Puerperal sepsis, pyæmia, phlebitis, gluteal abscesses, pulmonary infarct, general arthritis, and suppurative nephritis.

Remarks.—1. It is to be regretted that no culture was taken either from the blood or from the uterus at the onset, for certainly there were more virulent germs at work that the colon bacillus.

2. The recovery from such a protracted and severe pyæmia is remarkable.

3. The antistreptococcus serum did no good, nor did it accomplish any harm.

4. The improvement after the use of the inunctions of the silver ointment did not seem to be a coincidence, although it did not affect an absolute and immediate cure, as in Dr. Jones' case, it certainly turned the tide toward recovery. The general condition improved at once. The patient was hungry and more rational. The ointment did not prevent complications, but undoubtedly it fortified the patient and increased her resistance, so that she managed to survive them.

The chills, which had been occurring twice a day, stopped immediately and did not occur again for three weeks, and they were due to the suppuration in the kidney. These chills were much less severe.

5. The ointment is not a remedy for all cases of sepsis. The preliminary curettement of the uterus, the frequent douching as long as the discharge is profuse and the uterus is not draining well, the forced feeding, and the vigorous stimulation must be used with good judgment at the beginning of the infection and during the method of treatment.

At the Sloan Maternity Hospital we have used the inunctions in one other case. This patient died. She had gangrenous metritis, so general that hysterectomy at the onset alone could have saved her.

6. There were 68 inunctions in this case, a drachm each, Schering and Glatz's preparation of unguentum Crede. There was no depression, no albumin in the urine, no argyria, and there were no poisonous or bad symptoms from its use.

This case occurred in the service of Dr. E. B. Cragin, with whose kind permission I publish it.—(447 West Fifty-ninth St.)—*N. Y. Medical Journal.*

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INCORPORATED 1867.

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Literature on Application.

THE VASS CHEMICAL CO.,
DANBURY, CONN.

27

On the Therapeutic Use of the Colloidal Metals.‡

The explanations of Dr. Lottermoser, published in the March number of the *Monatschefte*, in regard to the chemical properties of the colloidal metals have at once raised great hopes as to the therapeutic results to be obtained from them. The preparation of silver, a metal never before usable in the pure state, in a soluble form favorable for absorption, and of metallic mercury, so long employed, in a colloidal modification, seemed to offer possibilities of a most exact dosage and a very ready absorption. In the case of the Colloidal Silver the preparation was entirely new, and enables us to employ the medicinal properties of the metal itself. The salts only had been previously used; and these have very different actions in accordance with their acid constituents.

Dr. Schlossmann then proceeded to review the published references with the new drugs, more especially those of Crede, Weidmann, G. Schirmer, Wolfrom, Werler, and Klien, with Colloidal Silver. The literature of Colloidal Mercury is as yet scanty, and the author can refer only to the results obtained by Werler and Hopt.

For more than a year the author had been conducting a series of physiological and bacteriological experiments with Colloidal Silver (Collargolum) and he finds that it is entirely, and positively so in therateutic doses, non-poisonous. Injected subcutaneously, administered per os or per inunction, or applied intraperitoneally, to the extent of 1 :360 of the body weight, he never saw any toxic symptoms. Mixed with milk containing a little sugar the 1 per cent. solution of the drug is readily taken by children. A 1 per cent. solution in albuminized water had absolutely no effect upon either the healthy or the inflamed mucous membrane. Instillation into the eye caused no sensation either in the author himself, his colleagues, or other persons experimented upon. Its application to other mucosæ was equally non-irritating.

For a bacteriological point of view the solution of Colloidal Silver was found to be extremely efficacious; more so than the sublimate. This was especially noticeable with the pyogenic cocci, the diptheria bacilli, and the organism belonging to the coli group. The addition of ½ to 1 :10 ccm. (2½ drachms) of a 1 per cent. solution to the agar plates hindered all growth. Strewn in substance upon the surface of the plates, large sterile rings were always formed around it. The researches of Thiele and Wolf (*Archiv fur Hygiene*, 1898) on the bactericide action of the metals show the significance of these results.

If after opening the peritoneal cavity of guinea-pigs and rabbits pus organisms, staphlococcci and streptococci, or diphtheria bacilli are introduced, and also a few pieces of silver in substance, the animals remain well, or at most are very slightly affected; whilst the control animals die. One year ago Dr. Schlossman exhibited in the same society in which the paper was read a rabbit that had been thus treated with diptheria culture and silver.

Bacteriological experience with Colloidal Mercurry (Hyrgolum) is more scanty; yet it seems certain to the author that it by no means equals the silver preparation in antiseptic value. The mode in which solution is effected seems to be of importance. Solutions made with the help of albumin are less active than such as are made with water alone.

For therapeutic purposes the author employed the Colloidal Silver as a salve in the form of the Unguentum Crede, and in 1 per cent. albumin solution externally, internally, and subcutaneously.

With the Unguentum Crede he treated phlegmons, pemphigus neonatorum, postvaccinial glandular swellings, scarlatina, and diptheria; in all eighteen cases. In phlegmon he believes that he has seen good results in some cases; but in others the progress of the disease seemed uninfluenced. The influence of the ointment in the glandular swellings of the acute infectious disease was more marked; quite regularly there was a rapid decrease in the size of the tumor, and many glands in which his former experience would have led him to expect supuration, underwent spontaneous involution. And if his experiences in the more purely surgical affections were not so brilliant as some of the reports in the literature would have led him to expect, he thinks that it may have been dependent upon the technique of the inunctions, which plays an important part in the results obtained. Crede states that two-thirds of the inuncted silver reaches the tissue fluids; yet this must naturally vary in the different cases. Subcutaneous exhibition permits of more exact dosage; but subcutaneously he only employed the Colloidal Silver in a few cases of deep-seated glandular swellings. Apparently the injections were as good as painless, and the results were satisfactory. Only in one case did subsequent abscess formation occur.

The author's most extensive experiences were in the use of the Colloidal Silver in acute conjuctivitis, above all in gonorrhoeal

‡Dr. Arthur Schlossmann.

A SUPERIOR INTESTINAL ANTISETIC

IN THE TREATMENNT OF

Enteritis, Dysentery, Infantile Diarrhœa, Typhoid Fever. Intestinal Catarrh, Diarrhœa of Phthisis, etc.

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May be administered for an unlimited period without producing harmful effects, rendering the drug especially valuable in the treatment of chronic intestinal troubles.

Dose for Adults: 5 to 15 grains, three to five times daily.

Antinosine (the sodium salt of nosophen)—**soluble.** In 1 per cent. solutions superior to bichloride of mercury, carbolic acid, peroxide of hydrogen, permanganate of potash, etc., as an antiseptic fluid. Applied in 50 per cent. solutions it supplies a treatment for chronic leg ulcers excelling any other; surprising results are on record in very old cases.

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opthalmia. One to 5 per cent. albuminous solutions were employed, being applied to the conjunctiva by means of a camel's hair brush. The results were very excellent in all cases, and he places the drug at the head of all the remedies at our disposal for the treatment of this often so obstinate affection. The instillations were entirely painless. Improvement began with the first application, and not infrequently the children were discharged cured after four or five days.

Schlossmann employed a similar solution for instillation into the ear, but was not satisfied with the results in supurative otitis media. This may have been mainly due to the difficulty in applying the curative solution to the affected area. On the other hand he found the preparation of unequalled value in the treatment of colicystitis. He irrigated the bladder thoroughly with lukewarm water, and then injected 100 ccm. (3½ ounces) of the 1 per cent. albuminous solution. Its effect was instantly visible; in every case the temperature fell, the general condition improved, and the urine rapidly became sterile again.

Schlossmann also employed Colloidal Silver internally in acute intestinal catarrhs of infectious origin. A teaspoonful of the 1 per cent. albuminous solution was administered with a little milk or syrup every hour or two, the children taking it willingly. It is possible that the improvement may have been partly due to the simultaneous regulation of the diet. But the author recommends the Colloidal Silver to all practitioners who treat these infectious intestinal diseases with intestinal antiseptics as worthy of a place in the very first ranks of the drugs available for that purpose. Besides its great antiseptic power it has the advantage of being absolutely non-poisonous.

With Colloidal Mercury (Hyrgolum) the author treated seven cases of infantile lues, six congenital, and one acquired at the age of a year and a quarter. He used inunctions of a 10 per cent. ointment made with cold cream; this can be readily inuncted into the skin. In all cases the syphilitic symptoms rapidly retrogressed; in no case did there occur symptoms of intoxication. He found that 2 grams (30 grains) per inunction was a sufficient quantity. It was very noticeable that the general condition of the children was in no way affected by this mercurial treatment. Under grey ointment the childrens' weight curve regularly remained stationary, or sank; under the Colloidal Mercury ointment the exact opposite took place. All the nurselings increased in weight whilst under treatment; one of them in fact gained rapidly, to the extent of 200 to 250 grams (6⅞ to 8¼ ounces) per week. In one case the author was able to demonstrate the admirable absorption of the mercury in this colloidal form. The patient was inuncted every second day with 2 grams (30 grains) of the ointment. On the second day demonstrable quantities of mercury were found in the urine. This was by qualitative test only. On the fourth day, in 850 ccm. (28 ounces) of urine collected in the meantime there was 0.0116 gram (1-6 grain) of mercury; in 750 cccm. (25 ounces) on the six day there was 0.0109 grams (about 1-6 grain). In another case the presence of a much smaller quantity only was demonstrated.

In conclusion the author states his conviction that silver in its colloidal state is an excellent, non-irritant and non-poisonous antiseptic that deserves to be tried not only in surgery, but also in all the various fields of internal medicine. No other remedy so quickly and thoroughly cures the infectious diseases of the mucous membranes, above all the blenorrhœal opthalmia of the new born and colicystitis. Colloidal Mercury, on account of its minimum toxicity, ready absorbability, and prompt action, is also deser ving of general attention.

In a note the author states his belief that simple solutions of the pure metals should not be employed, but that albumin to the amount of the beaten white of one egg to 200 ccm. (6⅝ ounces) of the solution should always be added, even when the drugs are employed as ointments.

In dressing wound surfaces or abscess cavities at the surgical clinic of the Charite, Berlin, it has been found that most excellent results are obtained by applying gauze wet with a ten per ce nt. solution of camphoroxol or methoxol. The germicidal action of these applications is not only powerful, but also prolonged. Flabby, pale granulation soon improve under this dressing and healthy granulation is stimulated. The solutions are not at all irritant and there is no danger of toxic effects from absorption. They are, indeed, medicinal preparations and may be advantageously used internally when a germicidal action is desired. They make a perfect dressing for the umbilical cord applied in the manner described above. The solutions must be kept in a closed vessel, and not contaminated with organic matter. They seem to have no drawbacks whatever, being very stable and uniformly active.

Acetate of thallium, it has been found, may cause a rapid and complete falling out of the hair.

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Liquid Peptonoids in Typhoid Fever.

The food in typhoid fever is a very essential part of the treatment, many are the patients who have overcome the fever, but who perished for the lack of proper nourishment at the proper time.

In the disordered condition of the alimentary canal in typhoid fever is found the indication for the proper food, it must be liquid, it must be nutritious, it must admit of almost complete absorption by the stomach, it must be non-fermentable, or, in other words aseptic.

Milk, the main reliance in the feeding of typhoid fever, has two distinct disadvantages; it leaves a residue after but partial stomach digestion, hard curds or coagula which mechanically irritate the ulcerated patches; it ferments in the bowel and furnishes pabulum for germ propagation and thus adds to the existing septic infection. Liquid Peptonoids is an ideal help-food in typhoid fever, it is fluid, it contains the required amount of nutriment, it is completely peptonized and therefore capable of complete stomach absorption, no residue is left for intestinal digestion, it is absolutely sterile and aseptic, it therefore can not add to fermentative processes. In addition to all this it is very palatable and forms a grateful change from milk which often palls upon the appetite. It is also slightly stimulating.

Such a combination of qualities leaves nothing to be desired. It can be taken plain or in milk or water as preferred. The proper dose is one to two tablespoonfuls every two to four hours.

Try it in one case of typhoid fever and you will not willingly do without it again.

Artificial Limbs.

The loss of a hand or foot or even of an arm or leg does not mean what it once did. In former years the loss of a limb meant the complete loss of function; gradually, however, this condition was improved by appliances more or less crude and bunglesome until to-day the screw socket of Capt. Cuttle has given place to the almost natural artificial limbs made by the Winkley Co., of Minneapolis.

Their artificial leg for amputations, either above or below the knee, is of the highest grade, with every improvement, slip socket and patent adjustable. The chafing and irritation of the stump is the most constant source of annoyance and discomfort to those wearing the ordinary artificial limb, but for those wearing the Winkley double-slip socket there is absolutely no inconvenience or pain.

The double-slip socket was invented by a man who had lost a leg and was forced to wear the ordinary style, so he knew what he was doing and is another illustration of the fact that "necessity is the mother of invention." So, then, the Winkley artificial limb is a son of necessity by a one-legged man and comes as a boon and a blessing to all who must wear artificial limbs.

It is no longer necessary to leave home in ordering an artificial leg as the Winkley Co., guarantee a fit from your own measurements. But the large catalogue will be sent all who are in need of an artificial limb in which full directions and complete descriptions will be found. It you are interested address the Winkley Artificial Limb Co,, Minneapolis, Minn., stating just where your limb is amputated and they will send you a list of people who are wearing their artificial limbs with just the same amputation.

A N. C. Doctor to the Front.

The Medical Sentinel has a full page cut of Dr. R. C. Coffey of Colfax, Washington.

Dr. Coffey is a genuine tar-heel, having been born here and lived in the State until he was grown. In 1888 he removed to Idaho and since that time he has been closely identified with the growing West.

He was at one time Assistant Professor of Materia Medica at the Kentucky School of Medicine, he was later a member of the first Board of Medical Examiners of Idaho, first vice-president of the Society and secretary.

He is local surgeon for the O. R. and N. Co., and thus it is that blood and good State raising will tell in all the after years.

A young man properly raised in North Carolina can go any where and make his mark.

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Changes into Saddle Bag (is both in one). Finest, best durable leather finish outside and in (lined). Con'tents: 14 1-oz. rubber-18 6-dr. cork S.—Total 32 bottles, with space between rows or pows der papers, 2fsundry spaces,one under each lid, 7¾x2¼x2¾. Delivered, privilege of examination, C. O. D., bal. $8.50; or, express paid, $9, If you remit $1 earnest fee. We sell Saddle Bags low as $4.75. 24-bottle, with 2 S-spaces, $5.50. Best "Leader" Buggy Case, 26 3-dr.,26 6-dr., 4 3-oz. bottles in springs, 1 sundry space, $3.75. We mail full line prices and illustrations (on mentioning this Journal) if asked for.

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All ordinary substitutes for the mother's milk fail in some important attribute; thus the usual substitute, cow's milk, differs materially in composition, which no amount of mere dilution can correct, being deficient in fat, albumen, and lactose, whilst the casein is in excess. Further, as obtained in towns, cow's milk invariably swarms with bacteria, many of which are pathogenic to the alimentary canal of the infant.

ALLEN & HANBURYS, whilst accepting sole responsibility for the processss of manufacture and the chemical composition of these Foods, wish to add that the further statements above made are based not on their own *ipse dixit*, but on the accumulated experience of members of the Profession who have been good enough to communicate the results of their observations.

THE

"Allenburys" Milk Food, No. 1,

For use from Birth to Three Months.

Is prepared in the form of a dry powder, and is made from cow's milk, from which, after the proximate composition has been ascertained, the excess of casein is removed, and the deficiency in fat (cream), soluble albumen, and milk-sugar corrected. The method of preparation renders this Food sterile, and *boiled* water alone is required in preparing it for use.

Infants reared by hand should be brought up on this Food until they are three months old.

THE

"Allenburys" Milk Food, No. 2,

For use from Three to Six Months.

About this period (three months) it is found that the infant requires, in consequence of the development of the digestive organs, a somewhat more sustaining form of nourishment. This is best obtained not by increasing the amount of indigestible material, as is usually practiced, but by affording in addition to the milk a digested food

This Food contains, besides the constituents of the No 1 Food, maltose, soluble phosphates, and albuminoids derived from whole meal. There is, however, no unconverted starch left in the Food, which at this age the infant would be unable to digest.

These two Foods may be exclusively employed for the first six months of infant life, if the child is to be entirely raised by hand. As is, however, more often the case, the mother herself is able only partially to feed her child, and has to be assisted by artificial nourishment. It has been found by experience that these foods, *par excellence*, can be so combined with a result beneficial alike to mother and child. With the common substitutes this is never found to answer. The natural and the artificial foods disagree, and produce sickness, if the child has not already instinctively refused to take the breast for the more satisfying but indigestible bottle.

After six or seven months the diet should be changed from the **"Allenburys" Milk Food, No. 2,** to the **Malt Food. No. 3,** in which, though the starch is partially digested, yet the predigestion is not carried to such an extent as to leave nothing for the infant's stomach to perform —a course likely to retard the development of the natural digestive powers. *This is the Food so widely used and known for many years past as* **Allen & Hanburys Infants' Food.**

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Tongaline has been prescribed constantly by physicians during the last twenty years for the various forms of rheumatism, neuralgia, grippe, nervous headache, gout, sciatica and lumbago.

Every physician must be favorably impressed by the formula for Tongaline and its record of remarkable cures has led many of them to declare it to be a specific for certain conditions.

The action of Tongaline is rapid and always beneficial. In the first place it banishes pain. This is the first thing essential for a cure although it constitutes only a small part of the cure. The real cure follows when the poisonous waste materials which have caused the disease are separated and eliminated from the body by the stimulating effects of Tongaline upon the liver, the bowels, the kidneys and the pores.

The anodyne effects of Tongaline are not based upon morphine or opium since it contains no narcotic.

All the ingredients are eliminative and their action is so harmonious that the disease is corrected in many instances without the patient being aware of the action of the medicine which is followed by no disastrous or unpleasant sequlae.

All the salicylic acid used in Tongaline is made in the laboratories of the proprietors from the natural oil of wintergreen.

A Case of Secondary Carcinomatous Infiltration Treated with Guaiaquin.

This case was presented to the Practitioner's Society by Dr. Beverley Robinson. The patient was a woman, forty-six years old, a seamstress by occupation, who was operated on at the Newport Hospital for carcinoma of the breast in August, 1896. About a year later a second operation was found necessary. Subsequent to this operation, the patient's arm on the affected side became swollen and painful, and she came to Dr. Robinson for relief. After employing several remedies ineffectually, the speaker said, he was induced to try guaiaquin (guaiacol bisulphonate of quinine), which was supposed to possess the characteristic properties of both guaiacol and quinine. The patient began taking three grains of this drug three times daily in October, 1898, and continued it steadily for four months; during this period she improved markedly; both the swelling and pain disappeared, the patient slept better, and she felt better generally. In February, 1899, when the administration of the guaiaquin was interrupted for three weeks, the patient had a relapse; the arm again became swollen, and the supraclavicular space was evidently more infiltrated, although her pain did not return. During the past month the patient had resumed the use of the drug, and the swelling of the arm had again disappeared, at least to a large extent. During the past few days she had complained of an aching pain in the arm, which a tight glove seemed partially to relieve. Massage had also been useful at times. Several examinations of the patient's blood had been made by Dr. Frederic E. Sondern with negative results. Dr. Robinson said he was induced to try guaiaquin in this case as an experiment, and he simply reported the result in the hope of inducing other members to give it a trial under similar circumstances, because these cases were often very troublesome and painful, and any remedy which would mitigate the symptoms should certainly be welcomed. Furthermore, recent investigations seemed to demonstrate that carcinoma was a parasitic disease, and from that standpoint medical intervention, with the use of drugs or serotherapy, again assumed practical value. The speaker said he had tried guaiaquin in several cases of malaria with rather uncertain results.—*Medical Record.*

The University College of Medicine of Richmond, Va., gets out a very striking quiz-compend of information regarding this well known school.

Questions are asked and answered which serve to bring out in a very emphatic way the many advantages of this successful school.

The three departments of Medicine, Dentistry and Pharmacy are discussed in this little compend and any one interested in education along these lines either for himself or for a friend would do well to look into the University College of Medicine before deciding on a school.

Tri-State Medical Society of Alabama and Tennessee.

The Eleventh Annual Session of this highly successful organization will be held in Chanttanooga Tuesday, Wednesday and Thursday, Oct. 24th, 25th, and 26th.

There is every reason to believe that this meeting will be highly successful and of unusual interest to the general practitioner.

Those desiring to read papers should send titles to the Secretary, Frank Trester Smith, Chattanooga.

IT IS IMPORTANT

For the dispensing pharmacist to recognize the right of the physician to dictate, not only what remedy he shall use in a given case, but whose preparation he prefers, for the quality of the medicine is often as much a factor in the cure of disease as a correct diagnosis.

Most druggists appreciate this fact, some are indifferent to it, A few ignore it, specification is therefore a necessity.

Syrup Albuminate of Iron.

An organic compound of Iron, representing in a purified and soluble form the albuminate and salts (phosphates) present in the blood. It contains 0.7 per cent. metallic iron in a form readily absorbed and is very efficient in medicinal action. This combination of iron approximates the natural forms in which the metal is present in the animal system, and possesses a marked value in anemia and chlorotic neurasthenia where prolonged administration of iron is indicated. It is not only free from all tendency to cause digestive disturbances, but is of positive value in these conditions during convalescence. One part of this syrup represents about fifteen parts fresh bullock's blood.

Cordial Pas-Carnata-Merrell.

DARTMOUTH PHARMACY,
ESTABLISHED 1798.
L. B. DOWNING, Box 444.

"BY ALL MEANS TRY IT."

HANOVER, N. H., July 17, 1895.

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GENTS:—In June I ordered your Fl. Ext. Passion Flower, as an experiment, for a son of 12 years, who has made very rapid growth, and was at the time very nervous, and several physicians had tried in vain to help him, one an uncle in whose family he staid for a month. My wife happened to see your circular on Pas-Carnata, and on consulting the doctors who had treated him, they said, "by all means try it."

The result was truly marvelous.

There was a change for the better in four days. Facial and shoulder muscles were twitching when we commenced using it. In a few days they disappeared, and on 15 drop doses three times a day he keeps all right, apparently.

I shall speak a good word for the medicine, as I have already done. Will you please send me some circulars to give to my physicians? Very truly yours, L. B. DOWNING.

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TRUE SALICYLIC ACID in Crystals--Merrell.

TRUE SALICYLATE SODIUM IN POWDER AND TABLETS--Merrell.

The investigations of Professor Latham (Cambridge, England), confirmed by Drs. Charteris and MacLennon (University of Glasgow), warn the profession against the use of artificial acid of commerce and its Sodium salt.

They conclude that Commercial Salicylic Acid AND ITS Sodium Salt

- are slow, but certain poisons.
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- patients become delirious.
- dangerous to human life.
- have to be watched and not to be trusted.
- retard convalescence
- should not be administered internally, however much they may have been dialized or purified.

For internal use the true Salicylic acid and its Sodium salt should only be dispensed.

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JOHN M. SCOTT & CO., Charlotte, N. C,

Neurasthenia in Girls.

Yarnal (Medical Record) attributes to the exalted nervous sensibility of society-bred women the great tendency to develop Neurasthenia. A large proportion of these cases are reflex in character and occur during or immediately after puberty. Sometimes they suggest serious systemic diseases, such as insomnia, hemicrania, hysteria. neuralgia, etc. Many cases are cured by remedies directed chiefly to the organs of reproduction. The best treatment in the majority of cases is essentiaily tonic-ferruginous, stomachic or general, or a combination of these, Iron stands at the head of the list because it promotes digestion, enriches the blood and augments the supply of blood to the pelvic organs. Preference is to be given to the muriated tincture. This is when combined with strychnine and quinine, the latter being given liberally when Malaria is probably a determining element.

℞ Dioviburnia ʒ iv
Neurosine ʒ ii
M.S.—Dessertspoonful three times a day.

As a Uterine Tonic the preparation with viburnum as its basis and known as Dioviburnia is unequalled. It improves digestion and tones the general system, but acts especially upon the uterus and its appendages. It restores tone to these organs, reduces pain, and corrects those conditions which result in leucorrhea, displacement and the like.

Therapeutic Uses of Phenalgin.

Phenalgin is a derivative of coal tar and contains ammonia. Its chemical composition resembles that of ammoniated amido-Benzines. In the stomach the ammonia becomes free and acts as a stimulant, thus avoiding the weakening of the heart's action wihich has been observed to follow the employment of most of these derivatives.

It is a fine white powder of penetrating odor, of slight taste, and is not soluble in water. It is prepared in powder, tablet and capsules. Hofheimer has experimented on himself in cases of headache with a dose of 10 grains with good result. Further observation has shown that shortly after taking Phenalgin there is a quickening of the pulse; then the action of the heart, with the strengthening of the first impulse, is gradually slowed.

After having taken 10 grains many patients experienced slight deafness, which was followed by a calm sleep, the patients awakening free from pain which they have suffered. This was noticed in cases of headache and neuralgia. In cases of insomnia, Phenalgin alone often secured sleep, sometimes it was used in combination with the bromides, in which instances smaller doses were required.

In functional dysmenorrhea Phenalgin had very good effect. It was so employed that at the beginning of the menses 10 grains was given, in the following one and one-half days 5 grains every quarter of an hour.

Phenalgin was administered alone in cases of malaria, neuralgia, grip, rheumatism, dyspepsia, gastritis, dysmenorrhea, etc., also in combination with natr. salicyl, salol, and lycetol in cases of rheumatism and gout; with carbonate of guaicol in phthisis; with arsenic and quinine in malaria.

It was found that in every instance Phenalgin was useful in case of pain, particularly when there were marked symptoms of neuralgia or rheumatism.

It possesses hypnotic and anodyne qualities without having the deleterious effects which follow the taking of opium.

Phenalgin also possesses an antpyretic effect, and, either alone or in combination with small doses of quinine, shortens or banishes attacks of malaria.—Klinisch Therapeutische Wochenschrift. Vienna. Sajous Monthly Cyclopedia. Philadelphia.

In a paper entitled "Comparative Therapeutic Value of Recent Antiseptics in Pediatric Practice," read by Gustavus M. Blech, A. B., M. D., Chicago, before the Section of Diseases of Children of the American Medical Association at Columbus, Ohio, June 6th to 9th, 1899 (Medical Mirror, St. Louis, August, 1899), the author said:

"The antiseptic treatment of the urinary tract has heretofore been a failure. All drugs employed for that purpose were nothing else than intestinal antiseptics, and their administration in doses large enough and frequent enough to saturate kidneys and urine, was, to say the least, an unscientific experiment. Recently, however, Urotropin seems to be an ideal antiseptic for that purpose, unsurpassed by any other drug to my knowledge. Its value can be established clinically as well as bacteriologically. Decomposed by acid urine into ammonia and formaldehyde, it destroys the bacteria found in the urine in one or two days. In cases of bladder trouble it is valuable because the disinfected urine will not undo the effects of any local medication we may employ for the bladder itself."

MARCHAND'S EYE BALSAM

(C. P. Vegetable Glycerine combined with Ozone)

THE MOST POWERFUL AND AT THE SAME TIME HARMLESS HEALING AGENT KNOWN.

HYDROZONE (30 volumes preserved aqueous solution of H_2O_2)

THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER. HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

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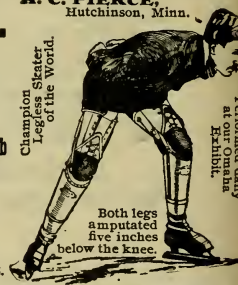
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The Injuriousness of Artificial Teeth.

Dr. Simpson, a Boston physician, evidently does not believe in the Italian proverb, "God gives nuts to those that have no teeth." (The Med. Age.) He maintains that artificial teeth are unhealthful, primarily because they enable elderly people to eat meat and other things not good for those who naturally have no teeth. The teeth,he maintains, fall out at a certain period because nature intended that at this time of life a vegetable diet should prevail. This being so, artificial teeth become a source of danger to the welfare of the organism.

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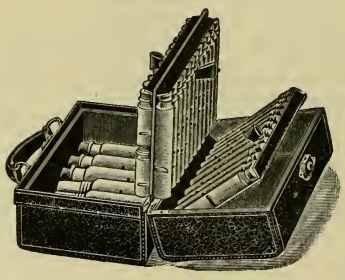

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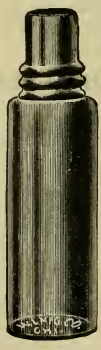

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The Charlotte Medical Journal.

VOL. XV. CHARLOTTE, N. C., OCTOBER, 1899. No. 4.

Observations on the Relation of the Uterus to the Thyroid Gland.*

By Charles R. Dickson, M. D., Toronto, Ont., Electro-therapist to Toronto General Hospital, Hospital For Sick Children and St. Michael's Hospital.

For the past nine years or so I have been devoting some special attention to the treatment of diseases of the thyroid gland, more particularly by means of the use of electricity in various forms. The results have been laid before the Canadian Medical Association on two previous occasions and also before other medical societies.

The present brief contribution is of a somewhat different character, namely: the relation of the uterus, or more properly speaking, the female reproductive organs to the thyroid gland.

A very cursory glance at current medical literature would suffice to dispel effectually any claim to originality in this theme, but it will also disclose a certain lack of unanimity on the part of our authorities.

For instance, the only reference in Flint's "Human Physiology" to this subject of relation to, or sympathy with the thyroid is, "An instance is quoted by Longet of periodical enlargement of the gland in a female during menstruation, but there is no evidence that this is of constant occurrence."

In Walsham's "Practical Surgery" there is also but brief reference, namely: under causes of goitre, "In sporadic cases, heredity, disturbance of the sexual functions, and conditions producing congestions of the head and neck, are given as causes."

The only reference which I can find in Osler's "Practice of Medicine" is under Myxœdema Proper, namely: "Though occurring most commonly in women, it seems to have no special relation to the catamenia or to pregnancy, though the symptoms of myxœdema may disappear during pregnancy or may develop post partum." No allusion is made to the subject when speaking of goitre.

On the other hand, Hirst's "System of Obstetrics" clearly recognizes the relationship existing between the uterus and the thyroid, and I may, therefore, be excused for quoting rather freely from this work, as follows: "The hypertrophy of the thyroid gland, and consequent fulness of the neck, apart from any local disease or endemic influence during pregnancy, is such a sensible and frequent phenomenon that the ancients recognized its occurrence. Thus we see the Venus of Milo, a girl on the verge of womanhood, with a slender, delicate throat, due to the rudimentary state of the thyroid, in strong contrast with the Venus Callipyge, a woman in magnificient maturity, undoubtedly parous, with a broad, full throat and marked thyroid development. The Latins, scarcely less critical than the Greeks, observed the same appearance. . . The organ diminishes in size during the puerperium, but remains more voluminous than prior to pregnancy. . . . The physiological hypertrophy of the thyroid gland at puberty and during pregnancy has been already mentioned. The exaggeration of this normal enlargement to such a degree as to be productive of serious symtoms is not an infrequent disorder of pregnancy. . . . A number of facts, fully supported by abundant clinical observation, render the theory almost certain that some necessary relation exists between pregnancy and certain cases of simple goitre. The disease is very much more common in women than in men. The intimate relation between menstruation and menstrual disorders and the thyroid is fully established.* The same connection between this gland and functional and organic disorders of the uterus and ovaries has been observed. The disease is observed much more frequently in women who have borne children than in sterile married women†. Bronchocele often makes its first appearance during pregnancy, increases rapidly in size during this period, and subsequently becomes reduced in volume. These facts indicate that whatever the true causes of simple goitre may be, pregnancy is often the actual exciting and determing cause. . . . The thyroid gland, first becoming prominent at puberty, remains stationary until pregnancy super

*Read at the Thirty-second Annual Meeting of the Canadian Medical Association in Toronto, Ont., August 30th--September 1st., 1899.

*Lawson Tait, E. W. Jenks.

†Allen Thompson Sloan.

venes. During the first or second pregnancy the gland increases rapidly in size, but seldom giving rise to symptoms of severe dyspnœa. In the interval between labor and the succeeding pregnancy the tumor is reduced in size, but remains a little larger than it was before pregnancy. . . . This process continues with each successive pregnancy, provided the woman does not succumb to the mechanical interference with respiration, until the menopause, when the tumor diminishes greatly in size or in rare cases, entirely disappears." (§).

Turning to Mann's "System of Gynecology," we find this allusion: "*Thyroid Enlargement.* This symptom, taken as an evidence of physiological activity of the reproductive organs by the poets and physicians, as well as the common people of Rome, was even regarded by so acute an observer as Meckel (Barnes) as a repetition of the uterus in the neck. This I have repeatedly observed as an accompaniment —I cannot say positively a reflex—of uterine diseases. . . . "†

Many more might be quoted pro and con, but the foregoing will be sufficient to establish the fact that the relationship is either not fully acknowledged by all whom we are accustomed to regard as authorities, or not thought to be of sufficient importance to dwell upon in their writings.

The observations to which I desire to direct attention are restricted to experience with about two hundred cases and are as follows: Diseases of the thyroid gland are much more common among women than among men. A direct sympathy, if nothing more, between the uterus and thyroid is manifested in many ways so frequently in fact as to preclude the assumption of mere coincidence. Thus, before the establishment of the function of menstruation the thyroid gland is quite often found to be in a hyperæmic or engorged condition; when menstruation is established this condition of engorment usually disappears, although it may occasionally persist in a lessened degree. In the cases in which the thyroid does not resume its normal dimensions it usually becomes more engorged before each menstrual period, receding in size upon completion of the period; or again there may be an accession in size at each period, which does not entirely disappear.

Enlargement of the thyroid, however, is not always a premonitor of approaching puberty; it is met with in children under eight years of age, and in one instance the thyroid had been prominent even since birth.

Goitre occuring after puberty is frequently associated with amenorrhœa; in a case in which both amenorrhœa and goitre proved very stubborn, an infantile uterus was found. Treatment directed to the amelioration of this condition resulted in the establishment of menstruation and reduction in the size of the thyroid.

In only one case has a diminution in size of a goitre during the menstrual period been noted, a parenchymatous goitre in a multipara.

When a patient with an enlarged thyroid becomes pregnant the gland increases markedly in size with each pregnancy to become smaller upon or shortly after delivery, although it rarely recedes to its dimensions before pregnancy.

In many cases pregnancy is directly responsible for goitre, which makes its first appearance early after impregnation.

In several cases it has been noticed that while the thyroid gland was undergoing electrical treatment the susceptibility to impregnation has been markedly increased, and this with patients that had not been pregnant for several years.

The occurrence of the menopause is not always the signal for the recession or disappearance of a goitre; on the contrary it may increase at this period. In a few cases the goitre has not given rise to any inconvenience until the menopause. A goitre, especially manifest after the climacteric, should be regarded with suspicion as apt to be malignant in character.

At three periods of life has the thyroid been most refractory to treatment: before puberty, during pregnancy and after the menopause.

This brief contribution deals with the subject in a very general manner only; no attempt has been made to burden it with figures, but I trust that enough has been shown to establish the contention. Apart from this, however, as a point of practical value the following conclusion may be drawn: In treating diseases of the thyroid gland in woman it is wise to inquire into the condition and habits of the uterus, and to devote some attention to it as well as, if not indeed instead of, the thyroid. Very active measures should be omitted before puberty, during menstruation and pregnancy, while the climateric is a time for especial suspicion.

§"American System of Obstetrics." Article on Pregnancy by William Wright Jaggard.

†"American System of Gynecology," Article on Hystero-Neuroses by George Engelmann.

An Arm Saved After Being Run Over and Crushed by a Railway Locomotive.*

By S. L. Kilmer, M. D., South Bend, Ind.

By way of introduction, permit me to say that the following case is not reported in consequence of its being in any sense new or remarkable, or as indicating any unusual skill, but because it shows what can be done by care and patience in cases that may at times seem almost hopeless in the matter of saving useful and serviceable limbs, and thus adding much to the comfort and happiness of the individual, and his usefulness to the public, and reflecting credit upon the medical profession. It is, of course, always much easier and simpler to perform an operation of amputation of a severely injured limb than to save it, and the surgeon is much sooner through with his patient, but the patient is not so fortunate in being through with his affliction when thus maimed for life; for, unfortunately, when a limb is once removed by the surgeon, it remains off forever, and no other comes to take its place, and I contend, much as we esteem the ability of rapid and skillful, as well as successful amputations and operations generally, such ability is not so powerful an argument in favor of the general qualifications of a surgeon, as will be demonstrated by saving, in a useful condition, a limb so seriously crushed as to appear hopeless. I admit, that it requires greater knowledge and more self-assurance to decide in favor of attempting to save a mangled limb than is required for its removal by amputation, but it is the surgeon's duty to be possessed of judgment and discretion, indicating when to withhold his hand, as much as it is his duty to perform operations skillfully and dextrously. If the surgeon will put himself in his patient's place, and then consider what he would wish to have done in his own case, simply observe the Golden Rule, he will not make frequent errors in this respect.

I am aware of the fact that some will say a stump is better than a deformed and useless member, and to this I assent; but not all deformed members are useless, nor are all useless members deformed, and the question of serviceableness depends upon their usefulness, and not on their perfection of form, or deformity. The mere fact that at some time a surgeon has succeeded in saving a limb or extremity which afterwards proved useless to its possessor, should not cause him afterwards, when in doubt, always to amputate, for I boldly assert, but without, of course, the opportunity of demonstration, that for every case of a useless member saved by conservative surgery, a score or more have been amputated, which might, by proper care and attention, have been saved to the great and lasting benefit of the possessor. The ease with which an amputation can be performed, the effect it has upon an unthinking public as an indication of skill on the part of the operator, thus tending to enhance his reputation, the flattering reports in many, if not most, localities, by the daily press, all conduce to operating and amputating without discretion or consideration, or discrimination, and thus, in time, there is a hardening of heart, and an involuntary amputating instinct formed by the surgeon to such an extent that all that comes to his mill is amputating grist, and he runs in a single narrow channel or rut, which causes him to overlook entirely the grandest portion of his duties, viz., not only to preserve life, but to so preserve the life and functions of an individual as to make him the most useful to himself, his family and the public.

The title of this article may be thoughtlessly considered as a misnomer, the forearm being crushed, but the crushing was practically of the entire forearm, and when we consider the usual rule to always cut wide of the injured tissue in railway injuries, we will see that to follow this rule in amputation of a case of this kind, we would necessarily sacrifice the entire arm. It will be observed that the general tone of the article is a plea in favor of conservatism. Now to the case in question:

About three oclock in the morning of October 26th, 1897, I was called to attend Mr. George Blue, American, age 27, height 5 ft. 6 in., weight 130 lbs., a yard switchman in the employ of the Lake Shore and Michigan Southern Railway, at South Bend, Ind., who, in turning to step from the foot-board of the engine, slipped on the frost and fell in front of the engine, which at that moment started, the engineer and fireman not having observed the fall of Mr. Blue. The engine, in running over him, dragged him for some distance. Perhaps he caught hold of some part of the engine to protect himself, but in any event he was dragged over the ties for some 30 or 40 feet. His left forearm lay across the rail, and one or more of the wheels of the engine ran squarely over it, crushing the bones into short lengths and fragments, and mangling and crushing the soft tissues in the usually frightful manner in such cases. There was also a scalp wound of some 4 inches in

*Read at the Mississippi Valley Medical Association, Chicago, Ill., Oct. 5th, 1899.

length, extending to the skull. After a primary examination, he was removed to the Epworth Hospital; there, assisted by Dr. C. Stoltz, I made a more careful examination of his arm, and found the above description not in the least exaggerated. My first impulse was, of course, to amputate the arm above the elbow, as being the proper course to pursue in consequence of the terribly mangled condition of the entire forearm. However, I remembered having read, not long prior, the results of a German surgeon, who had for some time made a specialty of endeavoring to avoid amputation in all cases where it was possible to do so, leaving, practically speaking, amputation to nature, under the opinion that nature was more conservative that art as practiced by the surgeon, and a better judge of the actual requirements than he; his method being simply to assist nature when it was evident that she was performing an amputation and thus to ascertain whether it were not possible to save limbs in many cases which, under the usual practice, had been sacrificed, and his success had been so marvelous as to even astonish himself, saving many limbs that appeared hopeless, and of many others saving a generous portion of the limb to the great benefit of the patient.

Having myself always been given to the practice of conservative surgery, although on a smaller scale, by means of which I had been enabled to save many entirely useful members, even without loss of motion in the joints which had been opened by accident or in the operation, I was the more easily inclined to believe that it would be perhaps justifiable to make the effort in this case to save the arm, despite its almost hopeless outlook, inasmuch as the arteries had fortunately escaped severing, as indicated by their continued pulsation, although it was feared their injury might cause them to slough, and thus bring on secondary hemorrhage.

The decision being made, I enlarged by incision one of the openings, from which protruded bones and mangled flesh, sufficiently to enable me to examine with the fingers carefully the entire interior, and removed with scissors a large amount of comminuted soft tissue; one section of the radius, 2 3-4 inches in length, which was entirely free from the soft tissues, was also removed, together with a number of fragments of bones of various sizes. A portion of the ulna, 2 1-4 inches in length, being still attached to some of the soft tissues, was permitted to remain, with the hope that it might perhaps receive a sufficient amount of nourishment to protect its vitality.

After having thoroughly irrigated the vast cavity within the forearm, and trimmed off as much as possible everything that was beyond the possibility of reparative process, drainage being provided for, and the fragments of bone replaced in as natural a position as possible, the arm was extended and laid upon a straight posterior board splint, extending from the axilla beyond the finger tips, carefully packed in a gauze dressing, and light bandages applied. Strict asepsis was, of course, out of the question in this case, but the general principles of antiseptic treatment were complied with as closely as possible under the circumstances.

The next day there was, as was to be expected, a great deal of tumefaction, the swelling extending well up to the axilla, the skin over the forearm and extending some distance above the elbow, much discolored, almost black, while the temperature was 101. On the following day the conditions were worse, and I began to fear that a great error had been made in the attempt to save the arm. However, the condition remained, practically speaking, stationary for several days, and then began a profuse purulent discharge. There were large formations of pus at various places between the elbow and wrist; in fact, there was a generally suppurating condition of the entire forearm, necessitating the free use of the lance, so that the whole forearm resembled a sieve or bag, and upon irrigating with some little force, the fluid would discharge from half a dozen different openings.

After a few weeks a splint was constructed, composed of longitudinal iron bars, curved so as to allow free access to the openings in the forearm, and at the ends of the bars leather straps and buckles, by which the splint was held in position; the bones being again arranged as correctly as possible, and free drainage provided for; the limb could thus be handled and dressed without the removal of the splint. The discharge was very free for a period of probably two months, necessitating a change of dressing twice a day. Eventually, however, the swelling subsided greatly, and the discharge diminished, and the general appearance of the arm improved. About this time, he left the hospital for his home, coming to my office every day or two for treatment for several months longer. There was still a considerable discharge, and it was evident there was some necrosed bone remaining, and on the 9th day of May, 1898, again assisted by Dr. Stoltz, I made an opening on the anterior or palmer surface of the forearm, near the wrist, and the portion of the ulna referred to above, as being left in the hope that it would survive,

the entire diameter of the shaft of the ulna, and 2 1-4 inches in length, was easily removed, being found lying in a cavity of its own, entirely freed from all other tissues, and dead.

The periosteum had unfortunately failed to produce new bone, as was hoped, and apparently the contraction of the muscles had crowded out of position the portion of necrosed ulna, approximating the extremeties of the fragment of the bones, between wnich there was a ligamentous union only. The wound was closed and speedily healed. The result is quite satisfactory, as the arm is quite useful, the patient having considerable power of flexion of the thumb and all of the fingers, which enables him to hold a book, or other object in his hand very comfortably; the ligamentous union, although quite short, unfortunately still permits the hand to droop, so that the arm becomes decidedly curved. This can, however, be corrected by wearing a splint for a few days, which serves to correct the position of the bones, or did until some months since. There is, however, now a contraction of the muscles, a slipping of the extremities of the bones over each other, and a shortening of about 3 inches. The arm is entirely well at this time; that is to say, it is entirely healed and painless. The ligamentous union and the natural weakness incident to the terrible injury to the soft tissues, makes it, of course, a very imperfect arm, but it is in a very much better condition, and much more serviceable than would have been any artificial arm that could have been put on the stump, had it been amputated.

An important matter for considreation in this case is the question of the advisability of freshening up the extremities of the bones and wiring them together in the hope of procuring bony union; such result would doubtless add very much to the serviceableness of the arm; but should the effort result in failure, it is believed that it would interfere to a certain extent with its present usefulness.

The result is indeed very gratifying, and demonstrates the justice of the attempt to save the arm, and I cannot refrain from the belief that very many limbs that are ordidarily sacrificed might be saved and made of more serviceability to their possessors by pursuing the course indicated above. It of course takes a long time and a great deal of service and very much worry also to produce a result of this character in a case of this description, and perhaps in some cases attempts might be made that would eventually prove to have been illy advised, and in which amputation might become necessary. Still, the results in this case have been so favorable, and my previous results from the practice of conservative surgery have also been so satisfactory, that I feel not only justified in continuing along the same lines, but would feel that in many cases it would be reprehensible not to make the effort to save very seriously crushed members.

I am of course not to be understood as advocating the attempt to save all limbs that are crushed. There are many of them that it would be the greatest folly to make such an attempt upon, but if the result herein described can be produced in an arm crushed between the wheel of a railway locomotive and a solid T-rail beneath it, it is reasonable to assume that favorable results may be produced in a goodly number of injured limbs that are ordinarily amputated because of a belief that it would be impossible to save them.

I know of no definite rule by which the surgeon's practice in this respect should be guided; much indeed must depend upon the wisdom and judgment of the surgeon; but basing my opinion on the conditions and results in the case reported herein, I should say that whenever the arteries are left intact, providing a blood supply to the parts beyond the injury, it would be justifiable to make an effort to save the limb,however much the bones and soft tissues are crushed, especially so if the condition of the periosteum is such as to warrant the belief in its vitality, and ability to restore new bone. The severed extremities of the muscles can sometimes be held in apposition by sutures. The loose fragments of bone may be removed, the remainder put into the best possible apposition, the limb thoroughly cleansed, laid in as natural a position as possible, kept clean and warm, and some dependence placed in nature, and she will produce results which will frequently astonish the surgeon by the way in which his art is excelled.

I have not mentioned the nerves, for the reason that their fibrous character generally protects them from laceration in doubtful cases, and even if a nerve is severed, it is entirely practicable to unite the severed extremities by suturing, with favorable anticipation of satisfactory results.

Lest there should be some doubting Thomas who would consider it impossible that a railway locomotive could thus pass squarely over an arm without crushing it beyond the power of nature with the surgeon's assistance to repair, and who would think, therefore, that an error had been made in the case here reported, pardon me for alluding to another case that occurred in my practice a few years ago, viz, April

21, 1897, in Mr. E. P., height 6 ft.,weight 170 lbs., 28 years old, an employe of the same railway company, who, in blocking a car that had no brake, was caught by the slipping of the stone used for blocking, the wheel caught his fingers, ran over them and his hand and forearm to the elbow, and yet did not break a single bone. The force was so great and the shock so sudden that it caused him to turn a somersault. There was a violent wrench or sprain of the elbow joint, and also of the shoulder, but as above stated, not a bone was broken, not even in his hand or figers, although the soft tissues were badly swollen and discolored for some time.

This is, however, an exceptional case, occurring, no doubt, in an exceptional individual; exceptional, that is to say, from the standpoint of good fortune, as he has at another time since then, quite recently, viz: July 12th, 1899, again miraculously escaped serious or fatal injury, having been caught between the draw bars of two cars, but instead of being cut in two, as is usual in such cases, he was apparently forcibly squeezed and rotated out of the very jaws of death, and although laid up for several weeks from his injuries, he has now entirely recovered and is nearly as well as ever.

While on the subject of conservatism, I hope to be pardoned by referring to one more case, in which the usual rule for amputation or excision was violated, and in which the result demonstrated the justice of the violation, and is a confirmation of the correctness of the opinion of Reyher regarding gunshot wounds of the knee joint. In brief, the case was as follows: Isaac James, station agent of the C. & G.T. R'y, at Granger, Ind.. on the 27th day of Oct. '95,accidentally dropped from his hip pocket a large caliber revolver, which exploded, and the cartridge took effect upon his left knee, the ball entering on the inside of the joint, squarely between the femur and tibia, and passed directly through the joint, plowing its way through the articular surfaces of both bones and lodged under the skin at the outside of the knee. The wound was probed and strips of gauze drawn through the course of the ball, removing thus a number of fragments of bone. After thorough irrigation, the limb was put up in a plaster case, and although the knee joint was badly inflamed for several months, the inflammation eventually subsided and he left the hospital in about three months after the injury with the limb almost well, and with the joint so good that a few months later, there was only a very slight limp perceptible in his walk, the motion of the joint being almost perfect.

Other cases might be cited, but the above are sufficient to demonstrate the justice of conservatism, in at least some cases that are generally considered outside of conservative boundaries.

Consumption Among the Poor.†

By Dr. E. J. Barrick, of Toronto.

I beg to submit the following as among the more important means of dealing with the Consumptive Poor, including the providing of the necessary funds therefor:

1. The establishment and maintenance of a Rural Sanatorium in connection with each Municipality or group of Municipalities for the reception of such cases as admit of a reasonable hope of cure or improvement.

2. The erection and maintenance in connection with the above Sanitorium of a suitable isolated building for the reception and treatment of such advanced cases of the disease as are unsuitable for Sanitoria treatment, and until such provision is adequate, to utilize so far as practicable the various existing Hospitals for that purpose, and would urge upon the authorities of such institutions the absolute necessity of adopting such means of isolation as may be approved of by the Provincial and Local Boards of Health.

3. The co-operation of the Dominion Parliament, Local Legislatures, Municipalities and Philanthropic and Charitable Organizations and individuals in providing the necessary funds therefor.

4. And further that the following plan of co-operation is worthy of careful consideration:

(a) The adoption of regulations by the Dominion Parliament and Local Legislatures for supplementing grants approved of by By-Law submitted to the qualified ratepayers for the purchase of land and erection of buildings.

(b) A per diem allowance by the Dominion Parliament, Provincial Legislature and Municipal Council, supplemented by philanthropy and charity by subscriptions, donations, bequests, legacies, etc., for the maintenance thereof, and that such Rural Sanatoria should be under the control and management of a large committee of citizens, acting in conjuction with the Local Board of Health.

The subject of Tuberculosis at the present time is undoubtedly one of the most important questions that can engage the attention of any Government, Legislature,

†Read before the Canadian Medical Association August 30th, 1899.

Municipal Council, Association or individual, and to whom are the eyes of the world turning today for light and guidance but to medical practitioners, who in their daily rounds are brought face to face not only with this disease in its various stages but also with the distress and poverty that are its natural consequences. Could there be then a more fitting place for its discussion than the 32nd Annual Meeting of this National Association of medical men?

I hope, therefore, Mr. President, that this paper will receive at the hands of this meeting the consideration that the subject deserves and that you will bear with me while I endeavor as briefly as possible to state some of the more important reasons in support of the propositions I have here laid down.

You will observe that I have left the broader domain of the subject and confined myself strictly to one phase, which I believe is of the utmost importance in checking the spread of Tuberculosis and lessening the mortality therefrom, namely, the isolation and treatment of the Consumptive Poor and the providing the necessary funds therefor.

The subject has been dealt with somewhat exhaustively from a scientific and clinical standpoint and the concensus of opinion is that the disease is contagious, preventable and curable especially in the earlier stages.

Sanatoria have been built in various parts of the world and the medical and public opinion in both Great Britain and America is, that whether viewed from a preventative or curative standpoint, the sanatoria treatment of tuberculosis has produced the best results.

But while sanatoria provision has been made for the reception and treatment of those who are able and willing to pay, so far the doors have been closed against the poor. While the mortality of the disease falls most heavily upon the artisan, the wage-earner, and especially upon the poor, where the conditions and surroundings are more favorable to the spread of the disease, it is a deplorable fact that no sanatorium door is today open to the Consumptive Poor, The object of this paper is to open a door.

I need not dwell upon the first two propositions setting forth the desirability of Rural Sanatoria, of isolation is existing hospitals, as these when viewed from a scientific and clinical standpoint, like the axioms and postulates of Euclid, are self evident not only to medical men but to every thinking person, and therefore require no discussion, argument or demonstration.

But while we should ever keep before us the scientific and clinical aspect of this question, and it is perhaps more strictly within the province of this Association to confine its deliberations to that side, yet if any progress is expected to be made in a more rational way of dealing with the consumptive poor, public opinion must be directed to the practical, financial and economical side, and this is the object of the third proposition, to which I shall devote the time yet allotted to me.

The third proposition calls for the cooperation of the Dominion Parliament, Provincial Legislatures, Municipalities and Philanthropic and Charitable organizations and individuals for the purpose of providing the necessary funds.

I shall note first some of the excuses offered why neither of these four sources of help have done anything towards the end here sought.

The first cry is one of regret, "no power;" second, one of poverty, "no money"; third, one of repudiation, "none of our business," and fourth, one of discourrgement, "no use trying."

It is claimed that the Dominion Parliament has "no power," the British North America Act having delegated that power to the Provinces. It is however gratifying to read in the daily press a few weeks ago of the stand that was taken in the Dominion House by Dr. Roddick, Sir Charles Tupper, Dr. Sproule and others, that notwithstanding the above fact, they thought the question was of national importance and that the Dominion Parliament should take action.

It is claimed that the Provinces having a fixed income and an increasing demand from the existing charities, have "no money" for Rural Sanatoria.

It is claimed by prominent municipal politicians, and I have heard them say, "it is none of our business," it is a national question and should be dealt with by the Government.

It is said by philanthropic and charitable people that there is "no use trying" to cope with a question of such magnitude unless the other three sources mentioned co-operate.

Thus we have reproduced day after day and year after year by these four sources of help the old, old story of the Priest and the Levite, with this exception, that so far no Good Samaritan has come to the relief and opened one Sanatorium door for one poor consumptive.

Now, Mr. President, at the close of the nineteenth century when million dollar funds are being raised by the churches, and the spirit of combination, amalgamation and

trusts seem to be floating in the air, is there no power that can be brought to bear upon these four sources of help to bring about the co-operation asked for in the third proposition.

There is one power, and I believe only one that can bring it about—it is the power of public opinion. Every Parliament, every Legislature, every Municipal Council, every organization and Association of every kind and every individual has power and can assist in producing the necessary public opinion. As the mighty power of Niagara is only the united power of the tiny raindrops that fall from the clouds, so the mighty power of public opinion is only the united opinions of the individvals that make up the nation.

I hope therefore we have heard the last of the "no power" cry, and that all will unite to bring about the co-operation so much needed in the interest of the consumptive poor.

I shall now give a few reasons why each of the four sources mentioned should contribute and also co-operate.

WHY THE DOMINION PARLIAMENT SHOULD CONTRIBUTE.

It goes without saying that the Dominion Parliament represents the nation. A nation may have ever so valuable assets in its forests, in its fisheries, in its mines, in its broad acres of fertile land, etc., but the most valuable asset a nation can have is its people, and this is eminently true of a nation like this Canada of ours with its unparalleled natural resources awaiting development. The cry of the nation is people, more people, and successive governments have expended large amounts of money, given large grants of mineral and fertile lands to induce people to come and live within our borders and assist in developing these rich resources.

Now statistics tell us that of all people who die between the ages of 15 and 60, no less than 37 out of every 100 die of Tuberculosis, 37 out of every 100 die at an age when their lives are of the most value to the nation, to the municipality and to the home, 37 out of every 100 die of a disease that is preventable and curable.

Now I submit that one of our people is at least of as much value to the nation as one immigrant, and I am sure that public opinion that approves of the expenditure to secure the latter will also endorse the granting of a moderate amount of money towards the isolation and treatment of our consumptive poor, and thus check the spread of the disease and save and prolong the lives of our people.

Again, a large proportion of the national revenue is obtained from a Tariff Duty. It is a pretty well established fact that the consumer pays the duty, therefore it is not unreasonable that a portion of the revenue thus contributed by the people should be returned and used to protect the people from the spread of Tuberculosis. Again, a considerable amount of revenue is derived from the liquor traffic. Now everyone will admit that the excessive use of intoxicating liquors lowers the vitality of the system, produces poverty, and thus predisposes the victim to the development of Tuberculosis, is it unreasonable then to ask that a portion of the revenue thus obtained be applied to the care of the consumptive poor.

WHY THE PROVINCE SHOULD AID.

The Provinces should aid in the first place because they have the power which was delegated to them by the British North America Act, and secondly, because they have the money. There was a time perhaps when the provinces might justly claim that their income was fixed and the growing demands of the existing charities left no money for the isolation and treatment of the consumptive poor. However in recent years a new source of revenue has been created by legislation and a large amount is now received from the succession tax. It is claimed that the imposition of this tax has diverted from charities large amounts in the form of bequests, legacies, etc., which formerly went to such organizations. Is it not reasonable then that some of the income from the estates of the rich should be used in caring for the poor who are suffering from Tuberculosis.

Again, by more recent legislation in Ontario, monetary institutions, rich corporations and trusts have been removed from the domain of the municipal tax-gatherer and used for revenue purposes by the Province. Some municipalities that have been large contributers to charitable institutions have suffered considerable financial loss by this change and their ability to contribute correspondingly lessened. Surely with such rich sources of revenue at hand no excuse can be offered why a Province should not contribute towards Rural Sanatoria.

WHY THE MUNICIPALITY SHOULD CONTRIBUTE.

There is no one who knows better than the municipal taxpayer himself that his burden is great, and that it will probably be greater, especially in those municipalities where the loss is great from the removal from the assessment roll of the above mentioned wealthy monetary institutions, cor-

porations and trusts, we will therefore have to approach the taxpayer from the financial standpoint, and show him that the policy he is pursuing toward Tuberculosis is a penny wise and pound foolish one. What would you say of a man who is complaining of the great expense he is put to each year in repairing the damage done to decorations, carpets and furniture caused by a leaky roof? You would say, you foolish man, why do you not repair the leaky roof? Why not apply the ounce of prevention rather than pay the pound of cure as you are doing? This is the short-sighted policy pursued today by the taxpayer in reference to the consumptive poor. He does nothing to check the spread of the disease and lessen the mortality therefrom but goes on each year paying thousands of dollars to relieve the distress and poverty it produces.

In Germany where compulsory life insurance is in force and where all in receipt of a wage below a certain amount are obliged to insure, Sanatoria for the treatment of tuberculosis have been established and maintained largely by the Insurance Companies where they send their insured for treatment with a view of prolonging their lives and thus postponing the day of paying the death claim. So successful has this undertaking been, purely from a financial standpoint, that the number of such sanatoria has increased each year, that while in 1895 there were only two of such institutions there are at the present time in Germany over sixty.

I submit that this experiment of sanatoria treatment of tuberculosis in Germany demonstrates beyond doubt that from a financial standpoint it would be cheaper and more economical for the taxpayer to contribute towards the erection and maintenance of rural sanatoria for the reception and treatment of the consumptive poor and thus do something towards preventing the spread of the disease and lessen the distress and poverty for which he is now spending so much money every year.

WHY THE PHILANTHROPIC AND CHARITABLE SHOULD CONTRIBUTE.

There is no diseaae that so strongly appeals to one's sympathy and charity as tuberculosis among the poor, especially when we see the breadwinner stricken down and the life ebbing away in crowded, unsanitary and ill-ventilated dwellings, with nothing in the surroundings to give half a chance for life, and everything to facilitate the spread of the germs of disease to others in whom the poverty and surroundings have helped to produce the nidus for the rapid development of the disease.

I am sure that when a clear, well-defined and workable plan is presented in which the three other mentioned sources would co-operate, a liberal response would be forthcoming from the charitably disposed in contributions, donations, legacies and bequests. No greater inducement could be given and no more potent argument could be advanced than the willingness of the Dominion Parliament, Provincial Legislatures and Municipality to co-operate in this important work.

Some may object to the plan because they think it is new, and has never been tried in any part of the world. This may be true, and if it is true, I see no reason why a young vigorous nation like this Canada of ours should not have something new, name it if you like the "Canadian Rational Plan" for dealing with the consumptive poor, and I care not whether you call it old or new so long as it accomplishes the end in view. However, whether the plan is new or not, the principle that underlies it is not new, it is now being applied in a somewhat modified form in our Public Schools, Technical Schools and Houses of Refuge for the Poor, and to illustrate the effect of grants by the government and qualified ratepayers upon the charitably disposed, I refer you to what has taken place in the County of Ontario during the present month. John Cowan and his brother, W. F. Cowan, of Oshawa, offered grants, the former $5,000 in cash, and the latter 45 acres of land, provided that a by-law for $12,000 is approved of by the qualified ratepayers of the county. To secure this and also the government grant of $4,000, a by-law was submitted for the above amount on August 21st and carried by a large majority. This makes, I am told, the twentieth county in this Proviuce where such Houses of Refuge have been established.

Now, I maintain that every argument that can be used in support of such houses of refuge for the poor can with greater force be used in support of the co-operative plan proposed in this proposition for the establishment of Rural Sanatoria for the consumptive poor. In other words, if the poor who are well require a House of Refuge much more do the poor who are ill with tuberculosis need a Rural Sanatorium.

If the Dominion and Local Governments would adopt regulations for supplementing grants by by-law approved of by the qualified rate-payers similar to what is now done by the Province of Ontario in connection with Houses of Refuge for the poor and also a per diem allowance for maintenance, I believe there would be a liberal response from the charitably disposed, and that a by-law would be sub-

mitted and carried at the first January elections in the new century in at least one municipality, and by this time next year a Rural Sanatorium for the consumptive poor would be an accomplished fact.

I submit that from the facts, arguments and reasons presented, it is clearly the duty of the Dominion of Parliament, Provincial Legislatures, Municipalities and Philanthropic and Charitable organizations and individuals, not only to contribute towards the support of Rural Sanatoria for the consumptive poor, but also to co-operate in this important work, as by so doing a greater number of needy ones can be reached, and a greater number of valuable lives be saved to the home and to the nation

I shall conclude with a word or two in reference to the last suggestion, namely, that such Rural Sanatorium should be under the control and management of a large committee of citizens, each of whom should bring the work in touch with some particu lar interest or phase of modern civilization, working in conjunction with the Local Board of Health. At present I shall offer only two reasons in its support:

1st. Public opinion is not and will not for some years be ripe for notification and compulsory isolation in tuberculosis as is now enforced by the Boards of Health in cases of smallpox, diptheria and scarlet fever. Much will, therefore, have to be done by means of educating the public so that the poor who are suffering from this disease will voluntarily take advantage of the Rural Sanatorium, not only for their own benefit, but also in consideration of the safety from contagion that such a course would afford their family and the public at large who have provided this free home for their care and treatment. These large committees of citizens would no doubt be an important factor in this educating process.

2nd. There is no philanthropic work if properly handled that will bring a more liberal response from the charitably disposed than a clearly well-defined practical rational co-operative plan for dealing with the consumptive poor, and there is no more simple and practical way of encouraging this plan than by placing the control and management under a large committee of charitably disposed people who are willing to contribute of their means and time to this most important and necessary work.

I do not pretend that the plan I have imperfectly outlined is anything like perfect, and my object in presenting it is merely to bring the subject before the Association and ask that a strong representative committee be appointed to bring in a report on the question at the Annual Meeting it 1900, and trust that the discussion on said report will form one of the prominent features of next year's meeting.

NAMES AND ADDRESSES OF COMMITTEE APPOINTED IN ALPHABETICAL ORDER:

J. G. Adams, M.A., M.D., Montreal, Prof. Pathology McGill University.

P. H. Bryce, M.A., M.D., L.R.C.P. & S. Edin, Sec. Provincial Board of Health, Ont.

E. J. Barrick, M.D., M.R.C.S, Eng., L.R.C.P., Lond., Toronoto, Member of the Medical Council, Ont.

H. H. Chown, B. A., M.D., Winnipeg.

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Some Points on Diagnosis and Treatment of Typhoid or Enteric Fever.†

By W. I. Sumner, M. D.

It does not come within the range of this paper to speak of history, etiology, symptoms or diagnosis of enteric or typhoid fever, more than is deemed necessary to discuss the treatment. I feel sure that I voice the sentiment of the general practitioner when I assert that we usually labor in doubt during the first week in many, if not in all, cases of continued fever as to whether it is typhoid. The most careful and accurate diagnostician is at sea during the first stage, and unable to make a positive diagnosis.

None, save the charlatan, is so precise, and acute in his far sight as to assume to be able to diagnose the class of cases in question on first sight. They are always able to make it "typhoid beyond the shadow of a doubt," and are also ready to attribute the cures of such cases as get well, to their superior art of treatment, and to meet the real cases with the assuming art of "I told you so."

It is, therefore, necessary to define and outline some of the landmarks whereby it may be known, that we may the better meet the demand when we come to consider a

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line of treatment. Typhoid or enteric fever has been defined as an acute infectious disease due to a specific germ—Eberth's bacillus, and claimed by some to run a definite course.. It is common in all races and climates, yet more abundant in the temperate zones, and the negro race is to some extent immune. It is also present in all ages and sexes, yet less frequent in infancy and old age, reaching its maximum between the ages of 10 and 15 years of age, there being 50 per cent. of all cases occurring during this period. We also find the disease to be less severe and of shorter duration, according to the age of the patient reaching its minimum both in time and severity in childhood. But search as we may we are often at a loss to find those symptoms which will enable us to say "*It is typhoid.*" So great an authority as Leibermeister says, "There is not a *single symptom* in typhoid fever that is pathognomonic."

But I wish to consider some points of diagnosis which are *very suspicious*, and of that class of symptoms upon which we must base our diagnosis.

In the beginning, we have general langor headach and aching of back and extremities, restlessness, loss of appetite, the tongue coated and "scoop shaped," bowels perhaps rather constipated, or sometimes a mild diarrhœa, a slight rise in temperature in the evening, etc. About the third day there is a general increase in all the wretched feelings with perhaps a chill and epistaxis. There is now continous fever with morning remission and evening exacerbation. Holt gives vomiting as one of the most frequent initial symptoms in children.

As time wears away we grow more and more anxious as do our friends, as they continually probe us with questions as to the nature and termination of the trouble. The fever has continued to increase from day to day, always being a little higher on each succeeding morning than the day before. The tongue looses its scoop-shape and becomes thick, red and painted and heavy brown-coated center, tremulous and sometimes the patient is unable to get the tongue out of the mouth to any extent; the bowels become swollen, tympanitic and tender, gurgling in the region of the ileum. There is now perhaps some enlargement of the spleen. This is given by some writers as being a very strong diagnostic point and seldom ever absent later than the end of the first week. The appearance of the lenticular or rose-colored spots are considered by some to be pathognomonic, but it is so often absent and so apt to be mistaken for something else that I consider it misleading and unsafe to rely upon. While some of these symptoms are really pathognomonic, with this class of symptoms, one would feel safe in diagnosing a case of typhoid with some degree of certainty.

I am fully persuaded that we have frequent cases of typhoid which are overlooked. I believe many mistakes are made. I believe many of the continued fevers pronounced malaria are typhoid, and many of the mild cases which escape the wretched symptoms common in the severe forms, and even some who have little or no rise of temperature, are simply mild—perhaps modified—cases of typhoid. We are too apt to look for that class of symptoms found in a *typical* case.

Dr. Geo. B. Wood, in his 9th Edition, Practice of Medicine says: "In some instances the disease presents no other symptoms than those of a moderate fever, with the characteristic phenomena of a slight diarrhœa or tendency toward it, some meteorism of the abdomen and perhaps a few rose-colored spots. The tongue remains soft, moist and whiteish throughout; there is no vomiting, no considerable nervous disorder, no great prostration.

The disease runs its course in two or three weeks, sometimes in less time. Such cases are often mistaken for miasmatic remittent, especially as they often have a daily remission and exacerbation of the febrile symptoms." I have believed for a long time and especially since studying the epidemic of typhoid which oocurred last fall at Marshville, N. C., that we more often make mistakes when it occurs in the epidemic form. It is little trouble to diagnose a case of typhoid when we know patients have been exposed to typhoid infection and when we have so many with like symptoms terminating alike in due time in the same disease. A quotation from Wilson's treatise on typhoid fever says: "The artificial or imperfect forms constitute in most epidemics a large proportion of the cases, and when the attention of physicians is more closely turned to the study of euteric fever from an etiological, as well as from a clinical standpoint, they will be found to be much more common where the disease is epidemic. Hence we see that the very best clinicians are unable to make a diagnose until the end of the first or second week of the fever and in some instances not even from the full clinical history.

The only sure means of an early diagnosis are the microscope and Widal's reaction. I am sorry so few are prepared to make such tests. I am convinced that from observation as well as from what I have gained from others that a patient may have

typhoid in a modified form, from having had previous attacks or perhaps by a slight immunity on account of his patients having had the disease just as we may have a modified form of variola, by having been vaccinated or by our parents having had variola or having been vaccinated before we were shapen in iniquity and born in sin. Having found such a formidable foe we are ready to draw the line of battle and commence the fight.

Unhappily I am unable to offer you any drug or any class of remedies which act as a specific. And although there has been perhaps more literature and scientific investigation on typhoid fever within the past eighteen months than any other disease within the field of medicine, still they have discovered no specific and there is perhaps no disease on which there is a greater diversity of opinion as to the way and manner it shall be treated.

The serum treatment, now in its infancy, has not been tested sufficiently to claim much attention yet. But there is a probability that it may prove a useful remedy. We have many modes or plans of treatment such as the Woodbridge, the Brand treatment, etc., and all having their adherants and each claim a reasonable success. The best plan of treatment is that suited to meet the individual symptoms of each case. If we have any choice in the matter we should choose a large, well ventillated apartment for our patient, free from noise and all disturbances. Nature has here given us a pointer by making our patient oblivious to all round about him. We should in all things imitate nature.

A good soft mattress. Rest in bed should be enjoined from the beginning. The nurses should be instructed in such matters as careing for the cleanliness of the patient's person, clothing, and that of the bed. She should also see that all the excrements, such as the fæces, urine, saliva, and the ejections from the stomach, are promptly and properly disinfected.

Much relief may be afforded to the patient by allowing him plenty of cold drinks, crushed ice, ice cream, etc. In the beginning I would say give as *little* medicine as the case will admit of. Too frequent drugging, as the Woodbridge treatment, cannot but worry and disturb the patient, thereby hindering nature's restorative.

It is safe in all continued fevers to inaugurate the treatment by giving a few small doses of the mild chloride repeated till effect. If diarrhœa is present the doses should be *small* and combined with sub. nit. bismuth, or Dover's powder, followed, if needed, by a saline. This with copious enemas clear the bowels of all irritating matter. It is also well to give a few small, repeated doses of quinine, noting carefully the effect it has on the temperature, avoiding the large doses, such as we often give in malarial affhctions. In my opinion the very large doses, such as are often necessary in malaria, are absolutely harmful in typhoid and abusive to our patient, and should not be resorted to as a means of diagnosis. "Upon the typhoid patient its effect is to increase nervousness, produce nausea, and perhaps hemorrhage and death." As a rule the headache, etc., need little or no treatment. We may, if necessary give bromide and chloral for this purpose, which will have a good effect on the nervous system. In the majority of cases the symptoms we most need tocombat are *diarrhœa* and *hyperpyrexia*. To be brief, we have no better treatment for the first than morphine and atropine hypodermically, at such intervals as are handy for the doctor, with bismuth and opium in the interim. This, as a rule, will control the bowels within safe limits. It is stated by some writer that the patient always gets along well whose bowels are constipated. To this I cannot agree. The intestinal tract is the great sewer drain of the system, by which most of the poison must be eliminated. Therefore, I maintain that a mild diarrhœa is helpful, but must be restrained within safe limits. If there is much pain and symptoms of hemorrhage we also find our best friend in morphine and atropine hypodermically, with ergotine the same way.

As the second week progresses we have an increase in all the symptoms. The tongue becomes thick, punctured, dark and dry; sordes collect on teeth and gums; the heart becomes weakened from over-work; the tympany increases, assuming the form of *meteorism*, muscular waste and debility increase with great rapidity. The patient is inclined to lie on his back, which should be discouraged from the beginning, with knees flexed, and to slip down in bed. By the end of the second week there is, perhaps, more or less delirium. At this stage we most of all need something to arouse the functional activity of the emunctories.

For this purpose we have nothing which better meets the demand than oil of turpentine. Notwithstanding it has been discarded by Osler and some of our best writers, as useless, it has lost none of its virtues and meets the demands, while they have given us nothing better in its place. While it is not claimed to act as a germicide or antiseptic as of old, it is used because of its ability to stimulate and arouse the entire glandular system, thereby encouraging nor-

mal secretion and relieving dryness by eliminating the collected gasses of the intestines and thus relieving tympanitis. It should be given in 5 to 10 drop doses every four hours. At this stage we meet the period of the greatest possible evils. Ulceration of the bowels is apt to occur and perhaps lead on to perforation and hemorrhage, for the ulceration we find our best friend in oil of turpentine and bismuth. We may also try the antiseptics and astringents, such as salol, sulphonal, sulphocarbolate of zinc, or nitrate of silver.

I wish now to notice for a few minutes the treatment of the fever in typhoid, the reduction of temperature. There is no one point in the disease on which there is such a diversity of opinion—while some rely entirely on the bath treatment, others rely entirely on drugs for the reduction of the temperature. They also differ as widely on the point the fever shall reach before they begin the fight,

It is my experience that, "iron-clad rules" on either side are dangerous. For while some patients, with a temperature of 103 deg., would very soon reach a state of delirium, others would scarcely know they had fever, and a fever of 103 deg. in a child would be less apt to call for treatment than the same in an adult. I would not advocate the too vigorous use of antipyretic measures, but whenever the temperature reaches a point above $98\frac{3}{5}$, we then have a morbid condition and whether it be 1 or 5 degrees above that point, it is fever just the same. And when it reaches a point where it makes a decided impression on the system, then and there the line of battle should be drawn.

What means shall we use? Until within the past few years we relied, to a great extent, on such drugs as acted as relaxants, diuretics, diaphoretics. Such drugs justly hold an important place in our treatment to-day. Such drugs as act on the dry skin and arouse the kidneys to better action, not only reduce the fever at the time, but eliminate the toxic elements which produce the fever. Of these I would mention only two, the spirits of nitrous ether and neutral mixture of acetate of ammonia. I find no reason to condemn the use of an occasional dose of some of the coal tar derivatives, either antipyrine, phenacetine, antifebrine, or acetanilid, backed up with citrate of caffein. With 3 to 5 grains of acetanilid, with same amount of soda and one-fourth grain of caffein, we can usually reduce the temperature within safe limits, and it will generally remain so for from 6 to 12 hours.

Besides reducing the temperature it also has a beneficial effect on the nervous symptoms, relieves the headache, and gives a few hours of refreshing sleep, acting on the skin and thus helps to eliminate much of the waste matter from the body. I am aware that the use of such drugs are condemned because it is claimed that they weaken the heart. But even then they often have to resort to their use, and their patients bear them when they cannot bear the bath treatment. If we could rely on statistics it would lead us to believe that the death-rate has been very much lowered in the past few decades by this treatment. But we must not fail to consider the reduction in the death-rate, no matter what has been the line of treatment. It has been so under all manner of treatment, and if nothing was done we would not have as heavy a death-rate to-day, with nursing and feeding, as we used to have from the best lines of treatment.

I have noticed that the most rigid adherent of the bath treatment bathes but a small per cent. of his patients. There are so many that it does not suit, and Osler, the Great High Priest of bathing in this country, states that "we have no guide by which we can select our patients."

I do not assume to say that bathing will not do well in some cases, but I seriously doubt its superiority over other lines of treatment. In my opinion it has sent many a poor victim before his time to "Abraham's pectoralis major," and as the good old camp meeting song says of the "old Ship of Zion," will doubtless "land as many more."

I therefore condemn the "*Brand Treatment*—

1st. Because it is impracticable for the general practitioner, and because it is not suited in those cases where it is claimed the *heart* will not bear the antipyretic drugs. Brand himself says of the treatment: "It should not be used under any circumstances unless there is proper massage—that it is not only *useless* but absolutely dangerous." Very few of our best physicians know much of the art or practice of massage. Brand also says it must not be used if we have a weak heart, as is exaggerates arterial pressure.

2d. Because it is absolutely dangerous and criminal left in the hands of a nurse, such as we have in our general practice, who are not capable of judging either when it shall be used or when the effect is sufficient to discontinue it, and are not capable of intelligently using *massage*.

3d. Because of the worry, excitement and shock produced by it on the patient.

I would only use the sponge bath, which is often grateful to the patient, more practical for general use, less apt to do harm,

will help to reduce the temperature without worry, excitement and shock.

In conclusion, I will speak briefly of the necessity of guarding carefully the heart, especially the last stage. Heart-failure is a familiar term coupled with death from typhoid or enteric fever, and is one of the frequent causes of death.

For the weak heart we have no drug which better meets the demand than *strychnia*. It should be used as soon as the *heart* shows signs of weakness, which should be examined often and carefully. I do not favor either whiskey or brandy as some do, but if the strychnia in large doses is not sufficient I use nitroglycerine. We may combine our strychnia with some one of the mineral acids, preferably hydrochloric or aromatic sulphuric, and later on, when tonics are needed, with Fowler's solution, tinct. iron, chloride, or the bitter tonics.

Nurse your patient carefully during the latter stage, give plenty of nourishing diet of a kind leaving the least residue, and let your patient get well.

Extreme Emaciation in Hysteria, with Notes of a Case.

By T. Beath, Winnipeg, Monitoba.

There are a few classes of cases in which our diagnosis can be conclusively confirmed without the unpleasantness (from a patient's standpoint) of an autopsy.

The success of treatment in malaria and syphilis gives to the diagnosis on immobility which it would require an irresistible force to dislodge. Belonging to the same list is the case I present to you.

E. H.——, a young girl born in 1873, of sound parentage was one of a healthy family numbering 12, and at 15 years of age was 4 feet 9 inches high, weighing 100 pounds. A farmer's oldest child all her life had been spent in the country except the two years between the 9th and 11th of her age, when she resided in town.

At 15 she spent a winter with an aunt at C., at school, suffering during that time from constipation (one stool in 9 or 10 days). At 16 she had fits, four or five a day, which started with twitching of the limbs and grinding of the teeth after which the mouth frothed, the eyes rolled up and remained open and set. In this condition she would lie often as long as three hours. For six weeks this continued. Her appetite gradually left her and she got very thin so that about October 1st, 1890, 18 months after the fits, she could not stand and spent four weeks in bed weighing, her parents say, 42 pounds. After this she rallied some and is now just able to walk.

July, 1891.—Patient is 18 years of age, very thin, and weighs, with heavy boots, clothing and a shawl, 43¾ pounds, measuring as follows in inches:

Wrist 5; mid. forearm 5; elbow 6; mid. humeral 4¼; malleoli 7½; two inches above malleoli 4⅛; thickest calf 6¾; thickest thigh 7¾; chest 22, full inspiration 23; expiration 20¾; waist 14–15; ant. sup. spines 7¾; widest points of ilia 9.

She has never menstruated. All her organs were normal, so far as I could make out, except that she complained of deafness without apparent cause.

Four weeks of partial segregation and Weir Mitchell treatment raised her weight seven pounds, and gave her and family such confidence in her powers of recuperation that she was soon on the way to recovery, and within a short time could walk 3½ miles alone. Two or three years later I saw her a plump, rosy, busy little girl, not only enjoying life herself, but besides permitting her family to have some comfort.

I have ventured to call your attention to this case looking to a brief consideration of three points:

(a) The extreme emaciation.

(b) The comparative absence of other symptoms.

(c) The nosological place of mucous colitis.

That this is extreme emaciation I think all will admit. Osler, in connection with this disease, says: "Death may, however, follow with extreme emaciation. In a fatal case recently under my care the girl weighed only 49 pounds. No lesions were found post mortem."

Some others speak of 70 and 54 pounds as being "wasted to the limit of wasting." This girl at 15 weighed 100 pounds, an average weight, and 2½ years later 42 pounds as her friends said, but with rather heavy clothing she weighed 43¾; and yet she was not only able to ride ten miles in a lumber wagon sitting upon a backless seat, but walked up stairs to my office with very little assistance.

One who has not seen such a case can hardly conceive the appearance of a skin drawn tightly over a jointed skeleton. Her frequent smile, instead of causing a bulging of the cheeks in curving fatty waves, was marked by a broadening of the mouth and a few curved furrows in the still flat drawn cheek. Generally a dry hard skin seemed to fit closely the prominent bones, and the ribbon-like muscles that could be felt, but the skin of the face was clear and the eyes, while sunken, were not encircled in black

The only approach to this state that I have seen has been in marasmic infants. That the wasting is greater in this than in probably any other malady is due, I think, to the fact that it is uncomplicated by any organic disease and so the constitution can withstand and recover from such grades of malnutrition, as, if complicated with tuberculosis, cancer, or any form of enteric disease, would prove fatal. And besides this trouble is more prevalent in adolescence when the elasticity, vital or resisting power is supposed to be highest, while others marked by leanness, more particularly cancers of æsophagus and stomach, are more prone to occur in older people in whom the thread of life snaps more readily.

Even among hysterics, I think this case reached a low point in nutrition without serious inconvenience owing to the absence of other hysterical symptoms. It is reasonable to think that the spasms, convulsions, prolonged total abstinence, anuria, polyuria, contractures, hyper- and an- æsthesiæ which usually figure so prominently in the history of these severe cases, must of themselves be a considerable strain on the constitution; and the history of this case seems to confirm that impression; for the amount of food assimilated must have been less than in some other cases and yet the consequent disturbance less.

(b) Among the reasons for the non-development of other special symptoms in this case were the distance from doctors (only two being consulted during the course of the disease, one calling it epilepsy, and the other consumption); the mother's care being necessary for the eleven younger children; the straightened circumstances of the family and the paucity of sympathizing friends on the prairie. These were all antihysteric, but above all, I believe, was the fortunate mistake of the physician in diagnosing consumption.

Parental belief in this removed the case from the list of rare, curious and wonderful diseases and placed it in the commonplace list where anorexia, wasting and death were natural and to be waited and watched for with due composure. It requires a very hysteric case to withstand such treatment for two years.

In passing I would say that any physician who after expressing before the patient his excessive wonder at the great peculiarities and inexpressible anomolies presented, and who after adding by his suggestive questions other disorders fails to amend the condition, is equally culpable with him who treats corrosive poisoning by giving carbolic acid, or opium poisoning by the administration of morphine. They invariably make the patient worse and each unsuccessful attempt makes treatment more difficult.

I found this a comparatively virgin case and so, tolerably easy to manage. A month or six weeks segregation with massage and electricity gave her and her parents confidence in the diagnosis and treatment was successfully carried out by them at home.

(c) Incidentally the subject of mucous colitis comes up because the tough, slimy mucus that accompanied the fæcal evacuations for the first two weeks were very characteristic of what is usually described as mucous colitis. The long tough, slimy band found mostly on one side of the hard fæces seemed to indicate its formation originally in the empty bowel, the descending fæces pushing it to one side whence, after becoming more or less adherent, they were voided together. In this and other such cases, I have been unable to find sufficient reason for the use of the term colitis, thus giving it the prominence of a law abiding disease and not treating it as an hysterical anomolous non-conformist.

"Colitis" should evidently be applied only where there is an inflammation and sufficient evidence to show that there is inflammatory action in these cases seems not to be present. Of the ordinary symptoms of inflammation, all are absent except the pain and functional disturbance, and as "mucous colitis" occurs remarkably in hysterical women, he who would in them base his diagnosis of inflammation on these two symptoms might fill text-books with rare and evanescent inflammations in any part of the body. Besides, the disturbance of function differs from that which usually characterizes inflammation of hollow organs for instead of frequent discharges with tenesmus you have constipation with usually very hard stools. The pain, unlike the more or less steady pain of inflammation has in my experience been severe only when attention was directed to it. One lady who brought me a mucous band several feet long (thinking it was tape worm) had very little pain till I was unfortunate enough to enquire particularly about it when, of course, she had it. She continued to have it for a few times when it wore off.

Autopsies showing this condition uncomplicated must necessarily be rare—hysterics are unfortunately long lived. Osler examined two and found no lesions. Inflammatory changes are recorded, but it is quite possible to have a genuine colitis complicate this symptom of hysteria, or you might have a genuine colitis in an hysterical person mistaken for the disorder we are considering. But what I am maintaining is that there is an hysterical symptom, indefi-

nite abdominal pain associated with the discharge of long strings of mucus per anum and usually constipation which is in no way associated with colitis. And they never should have been so associated, as such a cambination, besides being misleading scientifically, does positive harm to our hysterical patients by giving them a false claim to that sympathy which should be given to any organic disease. This renders treatment much more difficult because the base of successful treatment of hysteria lies in our thorough assurance that no organic lesion exists.

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Tuberculosis and Insurance.*

By John Hunter, M.D., Toronto, Canada.

Few questions are more perplexing to the medical director of an insurance company than the presence, to a limited extent, of tuberculosis in the family history of healthy applicants, and certainly nothing can seem more unfair to the latter, or be more exasperating to the physicians who make the examinations and recommend these risks, than their rejection.

Of course, there can be no two opinions about its being the first and most imperative duty of an insurance company to safeguard most scrupulously, the claims of the policy holders, and no one need be so ungenerous as to deny the company the exercise of such business precautions as are necessary to secure fair dividends to the stockholders. However, the granting of these privileges to the company impose upon it the duty of rendering the full measure of justice to the interests of the applicants, It may also be stated in this connection that whilst it is the duty of the physicians who make the examinations to furnish the medical director with full, accurate and honest reports in all cases in which there is a history of tuberculosis, it is just as fully the duty of the latter to assure himself that these applicants receive the full benefit of the accredited knowledge and experience of to-day. For the assuming of any mere hypothetical principle alone regarding the influence of hereditary tendency in tuberculosis, is not sufficient to justify him in giving a decision that may be very unfair to the applicant, and that may reflect very unfavorably on the professional standing, if not also upon the uprightness of the local examiner.

*Read at the meeting of the Canada Medical Association, held in Toronto August 30th, 31st and September 1st, 1899.

Enough has been said to indicate the purport of this paper, viz.: to invite a discussion that may help in some measure, at least, to define more clearly, if I may be allowed to use the somewhat expressive phrase, "where we are at" in reference to the relationship between tuberculosis and insurance.

Assuming that it is the province of an insurance company to grant the ordinary life policy to any applicant who should naturally live out the period of expectancy, to what degree then does the presence of tuberculosis in the individual or family history justify his rejection. The limitations of our knowledge of this disease, and of our experience with its mortality in life insurance, probably warrant the rejection of the following classes:

I. The tuberculous subject.

II. The descendants, say, under thirty years of age (this age being chosen to allow time for full physical development and the formation of stable habits of life); of a tuberculous parent, especially the maternal one.

III. All of the second class, irrespective of age, who have acquired or inherited any physical defect that would predispose to disease.

Eliminating these classes we have left those over thirty years of age who, apart from the incident that one parent had tuberculosis, are physically up to the standard of first-class risks, and the members of families of healthy parentage, but of whom fifteen or twenty per cent. became tuberculous after thirty years of age.

The question of admitting applicants from either of these classes under the terms of the ordinary life policy, calls for some discussion of the etiology, propagation, prophylaxis and curability of tuberculosis.

In regard to etiology the isolation of a specific micro-organism enables us to accurately define the disease as an infectious and contagious one due to the presence of the bacillus tuberculosis.

In reference to propagation we have the exciting and predisposing factors. The former is directly attributable to the entrance of the specific bacilli into and their destructive effects upon the tissues. The latter, or predisposing causes, may be considered, for the sake of brevity, under the following heads:

I. Environments.

II. Physical conditions either hereditary or acquired that predispose to disease.

III. Hereditary tendencies.

Under environments may be included everything prejudicial to health, whether in climate, food, habits, sanitation or voca-

tion. We pass over abnormal, physical conditions, since the two classes under consideration are assumed to be up to the normal standard of physical perfectian and proceed to discuss the problem of hereditary tendencies.

It is true that the doctrine of the transmission of hereditary tendencies predisposing to tuberculosis, has come down through the medical literature of all the centuries, and has received the endorsation of the masters in every age. However, with this doctrine, as with every other neither the veneration due to hoary age, nor the influence of its associations oblige us to accept it unreservedly, inasmuch as we know now how very imperfect was the knowledge on which it was founded and promulgated.

The direct transmission of the bacilli through parental channels has been shown by pathological research to be of such rare occurrence, and by experimental efforts to be so difficult of accomplishment, that practically it may be set aside as being of no importance as a means of transmitting this disease. In military parlance, then, it can be said that pathology and experiment have so impaired the bulwark of direct transmission that we have been obliged to fall back and construct, as best we can, a hypothetical sand-bank consisting of what is vaguely called hereditary soil, tubercular diathesis, vulnerability of tissue, &c.

A glance at the reports from the recent "Congress on Tuberculosis," held in Berlin, warns us that already skeptical hands are being laid on even the last tenet in our creed avowing the transmission of hereditary tendencies in tuberculosis.

Prof. Loefler is reported as saying that the father has no part in the transmission of this disease, and that it can only be transmitted by the mother when her reproductive organs are infected; that there is no proof of immunity from tuberculosis, or of congenital or hereditary transmission of it. Prof. Heubner stated that tuberculosis is not congenital. In 800 post mortem examinations on subjects, under one year old, tubercle was not found, and that infantile tuberculosis was, in the great majority of cases, due to infection from parents. Sir Herbert Maxwell and Dr. Pye Smith, Commissioners from the Imperial Government to this Congress, in their report to Parliament, state the following:

I. Tuberculosis is caused by the bacillus tuberculosis.

II. Tuberculosis as a condition directly transmitted is extremely rare.

III. Little or no risk of direct infection in pulmonary tuberculosis.

Prof. Friedeberg calls it the working man's disease, as fifty per cent. of the mortality in their clubs is due to tuberculosis.

At a meeting of the medical directors of the leading British insurance companies held in February of this year, the speakers whilst asserting more or less strongly their faith in the doctrine of hereditary tendency in tuberculosis, interspersed their discussions freely with such statements as the following: "It has practically escaped notice that the strongest arguments used to support the theory of family tendency to tuberculosis tell with at least equal force in favor of the view that infection is the cause of the incident and spread of tuberculosis. The close intimate circumstances of family life, the infection of the family home and the total disregard of precautionary measures in the family life, because of ignorance, these facts, I venture to say, play a much larger part in the tragedy of family liability to tuberculosis than does hereditary tendency to that disease. But these facts have been altogether ignored in estimating the value of family tendency to tuberculosis in its bearing on life assurance." "Every gentleman in this room knows when a man is in a good state of health, if he is plump and round, and his pulse regular; all his internal organs are healthy, it matters little what his family history has been."

Dr. Marsh, medical director of the New York Mutual Life Assurance Company, says: "In deciding upon the eligibility of an applicant in whose case there is a suspicion of future danger from consumption, his personal condition is of first, and his family record of second importance; whenever he presents a robust physical appearance, with a weight, at least equal to the standard or average as given in our tables, he may be accepted, notwithstanding any taint in the record of his family. In our experience such persons have a small liability to consumption, although not protected from it."

The same trend of opinion can be found in all the most recent works on "The Practice of Medicine." The authors although devoting some attention to the theory of heredity, lay special emphasis on the infectious character of tuberculosis.

Time will only permit a brief reference to one or two quotations from statistics. In the Report of the British Register General giving the mean annual mortality from tuberculosis per million, living at all ages, during the period 1851–80. Males under 15, 2082; over 65, 2842. Here we have a larger number of deaths from tuberculosis during the last fifteen years of life than during the first, or in other words, the grandfathers seem more susceptible to tuberculo-

sis than their grand-children. This—since pathology, experiment, and statistics alike show that childhood possesses no immunity from tuberculosis—appears very remarkable; if heredity be a strong factor in predisposing to this disease,to find in that part of the stream of life nearest the diseased fountain-head, there is less danger to the young voyageur, than there is in that portion left, after it has been meandering on for three score years, and has turned his face,now pale and wan,towards the setting sun. Surely owing to the innumerable changes that take place in the tissues hereditary tendencies must be very attenuated factors in these old people.

In an address delivered by Dr. Bryce, in this city some few months ago, I think he was reported as saying that about 80% of the deaths from tuberculosis in Toronto occurred amongst the working classes or those following special trades. Now were heredity a potent factor, should not the death-rate from this disease be much more evenly distributed over the whole population.

I will not detain you any longer with quotations from statistics, for doubtless this phase of the question will be exhaustively dealt with in the discussion that is to follow, but will proceed to notice, though very briefly, the problems of prophylaxis and curability.

The infectious character of this disease is now so firmly established, it naturally follows that prophylaxis consists in avoiding sources of infection, and the use of every available means of destroying the bacillus and its products. An article in the Canadian Practitioner (August number) shows that the acts of coughing, speaking, aud laughing are sufficient to disseminate the germs pretty widely, hence the necessity for personal cleanliness, antiseptic sprays and inhalations, daily baths,well ventilated, sunny rooms, wholesome food, health vocation, temperate habits, and out-door life. There is one very important factor in prophylaxis that I think receives altogether too little attention, that is the control,at least to a very much greater extent, of sexual indulgence. The frequency with which tuberculosis is found amongst those who resort to immoral practices and the enormous increase in the mortality during the most active period of sexual life amongst married people, are certainly sufficiently ominous to warrant us in advising these people to keep their sexual desires under the most rigid subjugation.

A line or two in reference to the curability of tuberculosis. The records of post mortem examinations show that the tubercular process must have become quiescent in quite a large proportion of those who had been infected at some period during life. The statistics showing cures now effected at the different sanitoria give a percentage all the way up to seventy. At a meeting recently held in Nottingham, Dr. Ransom gave a report of 1541 cases; 71% were restored to work again, and in less than 7% did the disease advance. I think I can safely state that it is the personal experience of every physician in this room to have a fairly large per cent of his tubercular cases restored to average good health. In the standing armies there has been a very gratifying decline in the mortality during recent years.

With more scientific knowledge regarding etiology, prophylaxis and treatment the more general co-operation of the public in preventing the spread of contagion—the easy access to, and the home-like comforts of our numerous health resorts—the establishment of a sufficient number of properly constructed and well managed sanitoria—with all these we can look forward most hopefully for a very great reduction in the mortality from tuberculosis.

In conclusion, although the purport and limitations of this paper have only permitted of the briefest possible reference to some of the phases of this very important question, yet I think enough has been said to show that the trend of medical opinion is now to attach so much importance to the infectious character of tuberculosis and so little to its hereditary tendencies, that a medical director would be fully justified in accepting applicants from either of the two classes under consideration, as ordinary life risks.

I would like to add that the time and need have fully come for the appointment of a medical commission tribunal, or court whatever it may be called—to which a rejected candidate could appeal from the decision of a medical director.

No. 8 O'Hara Ave.

Report of a Case of Complete Hernia of the Pregnant Uterus.*

By W. V. Anderson, M.D.

I present this report, ladies and gentlemen of the Mississippi Valley Medical Association, on account of its being an unique one, so far as I have any knowledge.

Our text books on obstetrics make frequent mention of the fact that the abdomi-

*Read Before 25th Annual Meeting Mississippi Valley Medical Association, Chicago, Oct. 3-6, 1899.

nal walls may so yield to the pressure of the gravid uterus that the recti-muscles will separate, allowing the uterus to carry the attenuated aponeurosis before it, and thus form a hernia, the uterus being the herniated part. But nowhere, so far as I am acquainted, has it been spoken of other than as an inconvenience and source of annoyance or pain to the pregnant woman, interferring with locomotion, &c. No one has, I think, mentioned this condition as a cause of dystocia and it is on account of this special feature that I present the report of this case to you to-day. Reynolds, in speaking of the relaxation of the abdominal walls, says: "This is most likely to occur in women who have borne several children and usually only when the confinements have followed each other with considerable rapidity. It gives rise to the malposition known as anteversion of the pregnant uterus, in which the fundus may reach in extreme cases, a position below the symphysis, or may even rest upon the thighs, this displacement being rendered possible by the distention of the tendinous central raphe and overlying skin after separation of the recti muscles. It is productive of much fatigue and dragging pain, but may be relieved by the application of a proper binder."

Lusk says: "In extreme cases of pendulous abdomen, the uterus, having separated the recti, descends, covered by fascia and skin, almost or quite to the knees, and seriously interferes with locomotion. Its pressure also produces œdema of the abdominal wall, vesical tenesmes, and pain in the distended cutaneous tissues. These symptoms are relieved by reposition of the uterus and by the application of a suitable abnominal bandage."

It has not, in the experience of these or other gentlemen, seemed to play any part in the mechanism of delivery. You will therefore probably be interested in the following case, if not its practical, for at least for its historical value.

On the evening of March 9, 1894, I was called into consultation by Dr. Arne Zetlitz of our city, now of Sioux Falls, S. D. I found him in charge of a large well developed Polish woman, the mother of ten children. She had been in labor for 36 hours under the care of a midwife before Dr. Zetlitz was called. We found upon examination that the abdominal miscles had been separated to such an extent that the uterus had passed out between the recti carrying the aponeurosis in front of it, and now hung like a great pear suspended by its cervical attachments, the fundus reaching nearly to the knees. The uterus was freely movable and the os was found to be fully dilated. The uterine contractions were good, considering the length of time the woman had been in labor; but the position of the uterus rendered them ineffective, for at each contraction of the uterus the patient would make vigorous effort to help herself, and through the uterus would rise until its long diameter stood at a right angle to the body, yet contraction and shortening of the abdominal muscles, instead of assisting delivery, acted somewhat as a draw-string at the mouth of a pouch, so that the greater the voluntary effort, the more it interferred with expulsion.

We placed her under chloroform, and after inverting the uterus and having it steadied by an assistant, while Dr. Zetlitz attended to the anæsthetic, I applied forceps (the head presenting O. L. A.) and delivered without difficulty a girl weighing 7 or 8 pounds. The birth canal was ample, and there was absolutely no cause of dystocia but the herniated uterus and consequent prohibitory effect of the contractions of the abdominal muscles. The second day after delivery my friends, Dr. Byron Robinson and Dr. Lucy Waite, of this city, being with us, we invited them to see the case. At that time the abdominal muscles were still so relaxed that they lay like rolls at either side of the abdomen, giving it something of the appearance of a shallow bird's nest, with the recti muscles as the rim, and the uterus covered by the loose, flabby integument forming the bottom. The skin was so loose and the muscular rolls so prominent that the fingers could be slipped under them and the muscles could be easily grasped as one can grasp the lapel of his coat.

The woman made an uneventful recovery, and some three months later she told me that she had no inconvenience following.

903 Oakwood Ave., Toledo, O.

Asphyxia and Its Treatment.†

By L B. McBrayer, M. D., Asheville, N. C., Ex-President Buncombe County Medical Society; Ex-Coroner Buncombe County; Member Medical Society State of North Carolina, Member Mississippi Valley Medical Association, etc., etc.

Asphyxia means a state of suspended animation caused by impeded respiration, as by submersion, smothering, suffocation, strangulation, the inhalation of irrespirable gases, etc., etc.

†Read before the Buncombe County Medical Society, at Asheville, N. C., Aug. 7, 1899.

We also have asphyxia neonatorum, a condition in which the respiratory muscles do not act or act imperfectly, and consequently breathing does not take place, although the heart may act with regularity.

Irving C. Rosse, A. M., M. D., Professor Nervous Diseases, Georgetown University, Eng., etc., writing on this subject, in Witthan and Becker's Medical Jurisprudence, Forensic Medicine and Toxicology, says:

The fatal result of asphyxia is owing to the introductory arrest of the pulmonary circulation, the capillaries of the lung being incapable of conveying venous blood. The stagnation of the blood in the lungs is followed by paresis of the respiratory centre and stoppage of the heart.

Page, in an article written in 1873, says, that in asphyxia the veins of the entire body are distended with very dark and very fluid blood, while the arteries especially in the young, are mostly empty. Experiments on the lower animals have shown that the pulmonary artery, and systemic veins, to their finest ramification, are distended with dark blood.

It would seem from Page's experiments that the mechanical obstruction, if any, was in the pulmonic capillaries. However, it is well known that the arteries, by virtue of their elasticity and contractility have the power of emptying themselves, and are always found empty after death, and on this account was supposed by the early physiologists to contain air, and hence their names.

Flint says: The arrest of the heart in asphyxia is chiefly mechanical, the unoxygenated blood passes with difficulty through the capillaries of the system, and as the heart is constantly at work, the arteries become immensely distended. These phenomena were particularly noticed and described by Prof. Dalton, and they demonstrate conclusively that in asphyxia the obstruction to the circulation begins, not in the lungs as is commonly supposed, but in the capillaries of the system, and is propagated back to the heart through the arteries.

The difference of opinion as to the cause of arrest of the heart in asphyxia has caused me to ask myself some questions, which I have not been able to answer to my entire satisfaction.

Why should not venous blood circulate through both the systemic and pulmonic capillaries? Does the giving up of oxygen and the taking on of carbon dioxide cause an increase in size of the red corpuscles? I have never heard such a claim made. Any way it would not increase the size from 1-3500 to 1-2500 of an inch, the size of a white corpuscle. And it is known that these white corpuscles circulate freely everywhere. Then what is the cause of arrest of circulation, if there is any, in the capillaries? And if venous blood will not pass through the systemic capillaries as claimed by Flint, why will it circulate through the pulmonic capillaries? and *vise versa*.

The arrest of circulation, if any, I believe to be due to the weakened heart action,

If the stoppage of the heart in asphyxia is purely mechanical, due to a failure of unoxygenated blood to pass through the systemic capillaries, as claimed by Flint, I don't see how respiration, artificial, or otherwise, would be able to start the blood going, as it takes 58 normal heart beats and about 48 seconds of time for the blood to pass through the arteries, capillaries and veins back to the heart, and as there is no way for the oxygen to get into the corpuscles except as they pass through the lungs, and as they are fastened in the systemic capillaries, and the heart unable to move them unless they get oxygen, I don't see how the heart is going to break the dam and force the circulation ahead. Now if the arrest of heart action was due to arrest of circulation in pulmonic capillaries and daming back on right heart, as claimed by Rosse, I could see how artificial respiration would give oxygen to the corpuscles, and they could go on their life-giving mission without impediment. But it is evident from the anatomical make up of the two systems, that if venous blood can circulate through the systemic capillaries, it can do so, with a little more ease, through the pulmonic. Might it not be true that obstruction in the capillaries, either systemic or pulmonic, has nothing whatever to do with the arrest of the heart's action in asphyxia?

It seems to me that a more plausible theory would be that the heart itself, the heart muscle, fails to receive the proper nourishment, because the blood circulating through its tissues does not carry oxygen, but is loaded with carbonic acid gas, and, therefore, cannot perform its function, and stops. Certain it is, that the heart muscle cannot survive any longer than any other muscle, without *respiring*.

In death from asphyxia the heart continues to beat for as much as three minutes after respiration has ceased. This has been proven by registering the respiratory modifications by the pneumograph, and also the condition of the femoral artery by the kymographion. As long as the heart continues to perform its functions, be it in ever so feeble a manner, there is hope of saving life, by artificial respiration, but when the heart stops beating in a person suffering from asphyxia, he is *dead*, irretrievably

dead, and no physician before nor since the days when the *great physician, Jesus of Nazareth*, walked the Judean hills, has ever been able to resusitate him.

I will report the phenomena taking place in two infants dying from convulsions due to reflex-irritation from an entero-colitis. I believe the immediate cause of death was asphyxia, due to the rapid recurrence of the convulsions.

As I sat over the patients with my stethoscope over the heart, I noticed that shortly after the convulsive seizure began, the heart grew faster rapidly, reaching 200 and more per minute, and as it neared the 200 it became weaker in proportion.

At this time the child would recover from its seizure and take a deep inspiration, the heart would immediately slow up, and if breathing continued, get down to 130 or 140, and proportionately stronger. These observations were repeated with the next convulsion, and the next, and so on, until the heart grew faster and faster, until it could scarcely be counted for its rapidity and weakness, then it would begin to slow down from its 240 gait, until it beat some 15 times or less per minute; this became weaker and weaker until the heart sound, if any, was inaudible. At this juncture, by artificial respiration, Sylvester's method, the child again took a deep inspiration, or gasped, as the layity would say, *immediately* the heart became audible and for a second or two slow, and then very fast, to again slow down to about 160 per minute. This was repeated for one, two or three times, when the life-giving, oxygen furnishing inspiration failed to sppear, the heart stood still, that the spirit might pass in silence to the God who gave it, and the child was dead.

But whatever be the cause of aspyxia, whether it be submersion, suffocation, the inhalation of what is called irrespirable gases, narcosis from the administration of anesthetics, opium, etc., the treatment is the same, and is expressed in two words:

ARTIFICIAL RESPIRATION.

The word respiration as ordinarily used means the mechanical process of inhaling and exhaling air or the assumption of oxygen by the blood in the lungs and the rejection of carbon di oxide, watery vapor, and traces of organic matter, at the same time by the same organs. But in reality means the taking up of oxygen and the giving up of carbon di oxide by the tissues of animals or plants. By *artificial respiratiou* is ordinarily meant the imitation of the natural movements of respiration.

It would be useless for me to go into the details of the different methods of performing artificial respiration in the presence of such an assemblage of intelligence and science as I have before me this evening. The methods of Sylvester, Schultze, Hall, Laborde's method of rythmical traction of the tongue, Nelaton's method of inversion of the body, the use of the bellows, hypodermic injection of oxygen, irritation of the anus and dilatation of its spincter, etc., etc., are too familiar to you all to need elucidation at my hands. Suffice it to say that the principal is very much the same in nearly all the methods, and the entrance of air into the lungs, the great desideratum. This is usually accomplished by increasing the capacity of the thorax by contraction of the diaphragm and the raising of ribs by the external intercostals, pectorals, and other muscles, which, for our present purpose, it is not necessary to mention. When the capacity of the chest is increased, a vacuum is formed, and according to a well known law of nature, air rushes in to fill it. The method of artificial respiration that best fulfills the above indications is the best one. Sylvester's method, is the one probably most used, and a good one, one great advantage being that you always have it with you.

But the use of the faradic current to carry on artificial respiration combines at once stimulation to the nerves of heart and respiration, stimulation to the muscles of the heart and respiration, ease and comfort to both patient and physician, and a minimum amount of shock and exhaustion to patient and exhaustion to physician, and *success*, when artificial respiration can be successful. The proper battery is any good one-cell faradic battery, either dry cell or bichromate of potash, and preferably two bifurcated conducting cords. Place one electrode of one cord on either side of the neck, on the sterno-cleido-mastoid muscle, near its insertion. From this you cause elevation of the ribs by the contraction of the sterno-mastoid and pectoralis, minor and major, acting from the mastoid process as the fixed point. And from this and the other pole placed on either side of the thorax at about the insertion of the diaphragm you get contraction of the external intercostals and the pectorals, and at the same time we have contraction of the diaphragm from the local stimulation of the muscle, and from the action of the current through the phrenic nerve. This simulates very much the acts of inspiration. The patient lies peaceably in bed and the doctor sits in comfort by his side. It may be necessary for an attendant to fix the head of the patient so that the

sterno-mastoid may act from the mastoid process as a fixed point. It is also usually necessary to pull the tongue forward so that the glottis may be well open.

The current or the electrodes should be removed as soon as patient inspires, and replaced and removed again about twelve to eighteen times per minute, for with a strong current constantly used, we might stop the heart by stimulation of the pneumogastric, and then the constant application of the current would tire the muscles or cause a tetanic condition if it were necessary to continue your artifical respiration for a long time; then you want the muscles to relax immediately after an inspiration so that the expiration may take place the more easily. You may not have the bifurcated cord at hand; you will then place one electrode on the sterno-mastoid muscle as before, and the other on the thorax at insertion of the diaphragm on the same side. In this instance you would change sides occasionally, using the current first on one side of the neck and body and then on the other.

The uninterrupted or constant galvanic current has also been used. In this you get the stimulation through the nerves, which is good, but you do not get the contraction of the muscles, which is the thing necessary to properly carry on respiration. However, if you had a rheatome to place in the circuit to produce rapid interruptions, the galvanic would be just as good as the faradic current. Respiration has been carried on by this method for several days in cases where paralysis of the diaphragm existed. And by myself and colleagues in a case of severe opium narcosis for ten hours, with recovery, as per following report:

On January 23d, 1869, I was called to see ———, male, age 45. I reached the house at 3 p. m., and found that my patient, according to his own statement, had taken ʒi of Majendies solution, containing gr. xvi of morphia sulph. at 2 p. m. Dr. Frank T. Merriweather had just entered the room and was administering hypodermic of atropia sulph., gr. 1-50. This was followed by a hypodermic of apomorphia, gr. 1-5, which failed to produce emesis, causing only a slight retching. After four minutes we proceeded to introduce the stomach tube. At this time Dr. Harry L. Baird came to our assistance, and we washed stomach thoroughly, leaving about 1 1-2 pints of solution potassium permanganate in the stomach, containing about gr. lx. When we introduced the stomach tube, which was some 1 1-4 hours after the inhibition of the drug, patient was conscious and resisted its introduction, insomuch that we had to force the jaws and keep them open by the mouth gag; but before we had finished the lavage patient was totally unconscious. At this time patient's pulse was good and repiration fourteen per minute, and it looked as if there were to be no serious consequences, as 1 1-2 hours had elapsed since the drug was taken. But our hopes were not realized, for ere another half hour had sped away our patient's respiration rapidly gave away, until for several minutes it seemed that every respiration would be the last; for several minutes he only breathed three times per minute, and once it seemed a whole minute between respirations, though it was not timed by the watch; at this time patient had a very rapid, weak and irregular heart. The further treatment consisted of the administration in divided doses of atropia sulph., gr. 1-4, up to the midgnight hour, and strychinia nit, gr. 1-4, till 2 a. m., and 20 gr. potassim permangranate. All the foregoing hypodermically, in addition to the permanganate solution left in the stomach after the lavage. And artificial respiration carried on at first by Sylvester's method, then, as soon as a battery could be secured, by the faradic battery. The battery was run almost constantly for 10 hours, until 3 a. m., of the 24th, when patient's respirations were from 9 to 11 per minute, and at 4 a. m., fourteen hours after the inhibition of the drug and after 12 1-2 hours of deep coma, patient showed the first signs of voluntary movements, by moving an arm. A short time afterwards I was giving him some water with a spoon, when he strangled and raised up in the bed. Then we found our patient suffering from atropia poisoning, having all manner of hallucinations, etc., which lasted for 4 hours, or until about 8 a. m. Patient now seemed to be in full possession of all his senses, except he could not see very well on account of the dilation of the pupils from the atropia, though I learned from the patient later that he remembered very little that transpired during that day. But he did remember some things that happened from 4 to 8 a. m., during the acute stage of his atropia poisoning. Patient was able to void his urine during the day and made an uneventful recovery, save for the occurrence of an abscess on his chest where the permanganate of potash was given, and was out in a week. Whether the abscess was caused by the permanganate solution, *per se*, or by the careless way in which it was given, I know not, for at the time we were giving these hypodermics we thought our patient

would be dead before we could administer another. After the patient was convalescent I learned from him that he took one-half of the ounce of Majendies solution hypodermically, using an antitoxin syringe, and the remainder by the mouth. He said the syringe leaked a little and so he took a tube of 1-4 gr. morphia tablets by the mouth, the tube contained 20 tablets, making five grains. Patient, therefore, got between 20 and 21 grains of morphia sulph. and 8 grs. of that amount hypodermically. I might say that patient was not addicted to morphine and had probably never taken half dozen doses in his life. The points of interest in this case are:

1. The large amount taken, gr. xxi.

2. The length of time between the exhibition of the drug and complete narcosis, one and one-half hours.

3. The suddenness of the failure of respiration.

4. The atropia poisoning following the opium narcosis.

5. The inutility of the permangate of potash as an antidote for opium. So far as I could see, the drug had no effect whatever.

6. The wonderful life-saving effect of the faradic battery, for I don't believe that patient could have survived the exhaustion and shock, incident to the carrying on of artificial respiration by any other method, even if we had been able to keep him breathing, which I doubt.

DISCUSSION.

Dr. D. E. Sevier.—Dr. McBrayer has furnished us with a most excellent and interesting paper, and one which I have enjoyed very much, but since the doctor has gone over the asphyxia and its treatment so thorougly, there is little left for me to say, unless I comment on something that he has already told. I believe when the pulmonary capillaries fail to take on oxygen and give up the carbon oxide, we not only have paralysis of the peripheral ends of the nerve supplying the lungs, but we also have paralysis of the nerve centres. For instance, if you cut the pneumogastric nerve you will have a slow respiration and a rapid heart action, which you have in asphyxia, and I believe that the vaso-motor constrictors are also paralyzed, leaving the arteries or the veins relaxed, therefore the entire circulation is engorged and retardation takes place. I believe death principally is caused from the circulation being gorged and the heart being weak and rapid, and at the same time the miasma in the heart muscle is destroyed by the carbon dioxide. The muscles of respiration, the intercostal and diaphram especially, you will find relaxed and in a weak condition. I think that in asphyxia in chloroform poisoning, that the treatment using the Faradic battery is of great value, provided it is used with due caution. I think that in incompetent hands it will do more damage than good, because a spasmodic condition of the diaphragm may be caused, and death produced by this means. I believe that atropia and strychnine are the proper drugs to use hypodermically, and, in some cases where you can use it, aromatic spirits of ammonia.

In conclusion, I would like to say that I now agree with a physician of this city who made the remark that Dr. McBrayer not only had his share of medical learning, but he also had good horse sense.

Dr. W. P. Whittington.—I do not propose to go into the pathological discussion of this subject to-night. I only want to say a few words about treatment. I agree with Dr. McBrayer in the use of electricity. Of course, the only hope of treatment, as the doctor says, is during the time that the heart is still beating. I do not think I can add anything to what he has already said, but there is one method of treatment I wish to mention, which has not been mentioned, or if it has, I did not hear it. That is the application of pure oxygen air into the lungs by the use of the bellows. I saw a record of a case some time ago where a boy had taken an enormous quantity of opiate, and was kept alive by the pumping of pure air into the lungs about ten to fifteen times to the minute for seventy-two hours. During that time they made an effort to suspend the operation of the bellows on three different occasions, and each time the respirations would come slower and slower and the heart action weaker, until they were forced to return to the same method. But finally the case was successsully treated by the bellows and the man recovered. In the same article I saw two or three cases referred to which were not so severe, but in this case an enormous quantity was taken for a boy 11 or 12 years old. It is strange to me why surgical instrument men do not perfect an instrument of that kind. I think the method is better than or any other method which can possibly be used.

Dr. T. P. Cheesborough.—I do not know whether I understood Dr. McBrayer to say that in asphyxia, after the heart has once stopped beating, death is certain. I have seen a case where asphyxiation had certainly begun, the heart had stopped entirely, and the patient was resuscitated. In the administration of ether you need not watch the pulse, whereas in aministering

chloroform you have to watch the pulse closely.

Dr. J. A. Reagan.—I think the paper a very excellent one, and it has covered the whole ground. I have found, in addition to all that has been stated, that cold application very frequently had a good effect, very much like that of electricity. It produces a shock, and where I had no battery I used that and used it with success, that is, following the other treatment. I think atropia is the best remedy we have for the poison of opium. I remember when I was in medical college that a child took by accident an ounce of laudnum. The faculty was called to treat the child, and had used all means possible, except one of the faculty, who argued that it was necessary to use belladonna to contract the influence of the opium, because the opium causes the eye to counteract, while the belladonna causes it to enlarge, and from that contrary action upon the nervous system he thought it would have a beneficial effect. The remainder of the faculty having given way, he used that and saved the child's life. I saw once in Spartanburg a case where a mother had given a child about a quarter of a grain of morphia through mistake. She gave it because it looked like a small dose. I was called in and used the balladonna and cold application and saved the life of the child. That is the effect I have found in those cases. A great many years ago a man was found in the French Broad River. He was taken out and buried. Later, because of suspicions in regard to his death, a post mortem was held, which was attended by three other physicians and myself. We found no water in the stomach or lungs, or anywhere else. It was a case of asphyxia evidently. I took the position that the man had been strangled by having thrown around him a piece of domestic found there. The man had evidently been intoxicated. To strengthen my view there was a piece of tobacco found in his mouth after he was taken out of the river. The other three physicians found he was drunk, and the man acquitted. I immediately wrote to two or three army surgeons and to the Medical Jurisprudence and to half a dozen physicians I knew in the North giving them the facts, and they all decided with me, that it was clearly a case of strangulation and the body afterwards thrown in the river, yet there were three physicians decided against me, and the man went clear. I think the paper was an excellent one, and the treatment has been well managed.

Dr. Glass.—I think the essayist has said about all that can be said. He has certainly given a paper in which his experience has been greater than mine. I have never seen a case of asphyxia which proved fatal except in chloroform or ether administrations, or in the poison from morphine. I have had considerable experience with those classes of cases, and I have always found that artificial respiration has been best carried on by the means mentioned by the essayist, and that atropia judiciously administered has been the most valuable remedy of all in cases of morphia asphyxia.

Dr. F. T. Meriwether.—There are two things, I think, which Dr. McBrayer omitted in the paper; that is, referring to the Labordi system of artificial respiration—that of pulling of the tongue and causing irritation—the drawing of the tongue from 15 to 18 times a minute. There is another form of asphyxia which I think deserves entirely different treatment, and that is those overcome by poisonous gases. In those cases the ideal treatment seems to be the letting out of this poison blood, and the introduction of either normal salt solution or blood, if you can get it, of course, using artificial respiration. Those two things I did not catch in his paper.

Dr. C. P. Ambler.—I would like to ask a question. Every one seem to look upon atropia as the sheet anchor in these morphine cases. I would like to ask what is the opiuion in regard to the use of atropia. As I understand it, there is no vaso-motor in the lungs, and when we give the patient atropia we dilate the circulation.

Dr. E. B. Glenn.—Atropine is a vaso-motor constrictor or stimulant, still and gives resistance for the heart to beat against when the circulatory system is relaxed. The heart has no resistance in front of it, so to speak. It does not prevent the blood frem getting to the surface, as Dr. Ambler thinks, if it is a vaso-motor constrictor, but it stimulates the blood vessels so it can get to the surface. The blood vessels, inside hold all the blood, and by stimulating and contracting the blood vessels, if the heart beats the blood is bound to get to the surface and turn the face red. You have a limited amount of blood in the circulatory system, and it stands to reason that in order to get it to the surface you have to use some agent, as atropine, to narrow the canals, that the blood stream may extend to the peripheral extremities of the blood vessels on the surface. Atropia is a physiological dose, stimulating the circulatory center in the brain, the heart vessel itself, and paralyzes the peripheral ends of the vagi, and in this way increases the heart's action.

Dr. J. H. Williams.—I have had very little experience in treating asphyxia in any

form. I only remember to have seen one case of genuine asphyxia, and that was from illuminating gas, and in that case I was simply a looker-on, and made no suggestions whatever. The blood being deprived of oxygen and the heart itself deprived of its natural stimulus, i. e., the oxygen, the case was treated by extraction of the blood from the veins in large quantities by venesection and replaced with intra-venous injections of normal salt solution. The use of the faradic current was quite sufficient to cause the rhythmic contraction of the muscles of the diaphragm, and the intercostal muscles which produce respiration. The efforts were quite successful after some five or six hours, and the patient had an uneventful recovery. I have had no experience with matters of that sort in my own practice, and have only a general knowledge of these things as we all have from our reading. In regard to Dr. Glenn's statement as to atropia being a vaso-motor constrictor, I shall have to say he is quite mistaken. It is a paralyzer. You will see it exemplified in the eye and in the capillaries of the skin. As Dr. Ambler said, the vaso-motor system does not exist in the lung as it does in the general system, and you may bring the blood to the system by paralyzing your vaso motor system externally and relieving it internally. At the same time, atropia is a powerful stimulant to the respiratory centres of the brain itself, and in that way we have a double action.

Dr. E. B. Glenn.—I would like to understand from Dr. Williams why it is that, if it is a paralyzer, it stops sweating, and why it is that you give it in shock, and why it is that you give it whenever you are bleeding from the lungs.

Dr. C. P. Ambler.—I take the position that the benefit of atropia is that the lung has no vaso-motor, and that while giving the atropia you dilate the circulation and simply bleed the patient into his own veins.

Dr. E. Morris.—Not very long since I saw a patient who was accustomed to taking morphine straight, and being unable to secure this used morphine and atropine combined. This was followed by flushing of the face, with rash. Patient could not understand this phenomenon, and called to inquire the cause. Of course it was explained by the action of atropine, and I heartily agree with Dr. Ambler that one of the physiological actions of atropia is redness about the face and eyes. However, I am decidedly of the opinion that atropia is a heart stimulant rather than a depressant, and this blush seems to confirm rather than disprove its constringing action upon the capillaries by forcing more blood to the surface. I do not believe that after the heart is once stopped it will never beat again. I know of two or three cases in my short experience where the heart stopped, unmistakably stopped, under chloroform anasthesia, but with a few up and down movements of the arms, pressing the elbows well into the sixth intercostal space to force the air out of the chest, the heart as perceptibly started up again as it had positively ceased. And this, too, with the respiratory function maintained all the while. I remember in two other cases where I was not giving the anesthetic the heart stopped, and I think it decidedly wrong to say that after the heart stops it is not going to start again. I think it is a demonstrated fact that the heart will start again.

Dr. J. H. Williams.—Just one point as to why atropia stops sweating. If it paralyzes the vaso-motor system which absolutely controls the action of the sweat glands, you can readily see how it will stop sweating. If the action of the nerves which controls the sweat glands is controlled by the action of atropia, you can see that the action of the sweat glands is stopped at once.

Dr. E. B. Glenn.—I don't agree with Dr. Williams in his opinion of the physiological action of atropine in stopping sweating. In my opinion, its action on the sweat glands is to stimulate and contract their mouths so it is impossible for them to discharge their contents on the surface. Atropine checks all the secretions of the body except those of the kidneys.

Dr. L. B. McBrayer.—In asphyxia there is evidently some trouble in the nervous system, but what it is I do not know, and I am not sure that anybody else does. We know what the books say, and sometimes we are lead to doubt their truthfulness, but I was really surprised when I got to studying the subject to find that so eminent an authority as Dr. Flint would say that the stoppage of the heart was due to the obstruction in the systemic capillaries, and a little further on would say thut the heart would beat for three minutes after respiration ceased, and that the entire blood in the body would pass through the heart in about 40 seconds, and by that calculation the entire blood in the body was passed through the heart and systemic capillaries at least three times after a man ceased to breathe, according to his own statement. Then he says the arteries were always found empty after death, and I really was surprised.

As to the bellows mentioned by Dr. Whittington, that has been used, but is the most dangerous method of performing arti-

ficial respiration. Unless you have instruments of precision to know exactly how much air you are pumping into the lungs. There would be a good deal of danger of rupturing the air vessels by pumping too much air into them. It is impossible to tell when the heart has absolutely stopped, even with your stethoscope on the chest, and I doubt very seriously if the heart stopped in those cases Dr. Morris and Dr. Cheesborough spoke of. I mentioned the method of traction on the tongue in my paper, but I was not going into the other methods, and am much obliged to the doctors for mentioning the treatment. I believe that is all I have to say.

Acromegaly and African Sleeping Disease

By Samuel Knox Crawford, M. D., LL. D., Chicago.

About a decade and a half ago, a Frenchman named Marie, described for the first time, a disease in which certain exposed parts of the body and particularly the face, hands and feet, grow inordinately out of all proportion to the surrounding parts. Accompanying this growth, are uniformly, mental phenomena, exagerating aptitudes. predispositions and emotional characteristics of the affected persons, prior to any noticeable diseased action. Later on, other observers took up the study of the subject, where Marie seems to have dropped it. They found in all cases, where post mortem opportunities for study were afforded, that the pituitary gland was greatly enlarged and its density immensely increased, They also found adjacent structures sufficiently pathological to fully account for the mental obliquities apparent in life.

All this study was to no practical purpose—the patients uniformly either died, or failed to recover and went on from bad to worse until the observers themselves either passed away or wearied in the work of daily observation without any therapeutic results and abondoned the study. A singular circumstance connected with this studential movement was, that not one of the many students was found ready to explain or even so suggest what should be done about it. Continued diagnosis without an occasional ray of curative hope crossing the trail becomes tiresome, and all men are prone to leave such tracks and seek other scents. Accordingly, ther fore, for a time, the matter was left in statu quo, until about a decade ago, perhas a little more and possibly a trifle less, and little disturbed, when a giant from beyond the seas came to our shores in search of gold in exchange for the exhibition of his ponderosity. After many vicissitudes of fortune, many blasted hopes and crushed aspirations, he fell sick and into the hands of one of our eastern neurologists, who gave him close attention and made his case a subject for careful study. The man died, and Dr. Dana made a careful and painstaking post mortem investigation of the conditions to be found in the dead monster's body.

Among many interesting things found, was a greatly enlarged pituitary gland, and adjacent pathologic changes, that fully accounted to him for the out-of plumb mental phenomena observed during life, and, comparing his findings carefully with themselves and with those of others in the study of acromegaly of Marie, he was forcibly impressed by their similarity throughout, and he thereupon entered on the study of giantism with commendable energy and enthusiasm. He found similarities prevailing everywhere in the two general conditions, and the mental similars were even more than the physical and naturally inferred that in some way the pituitary gland was the common aggravating factor in acromegaly and giantist and none have as yet refuted such conclusions and, therefore, the theory is generally accepted without debate, that this diminutive body is responsible for the perfect, or imperfect, normal or abnormal nutrition of the body, that is to say, its function long thought to be nil, is the superintendance of the great intricate and complicated function of nutrition which is the bottom part of organic life. This small body has more history than bulk, but like many other historical stories, greater volume than ponderous in fact. Early speculations concerning its function was altogether guess-work and random flights like a goose's passage by moonlight.

Dessertations concerning anything about it beyond its existence, location, and bulk, largely savored of ignorance and superstition factors frequently employed by morphologists. Barristers and masters of the green room alike have from time immemorial employed this body and its congenor, the pineal gland as posers for experts and candidates but have ever shied at explanations relative or irrelative. Within the present quadrennium the Pathologic Society of London, took up the study of the pineal gland. and, on one occasion had fourteen reports with ten specimens in evidence, with the result that but one symptom was found to be common to more than two cases and that was prolonged drowsiness, which was present in four. This was of long duration, lasting in one case for three months, and was of unusual character in that it never

approached the comatose state, the patient being easily roused and would even answer questions, without seemingly awaking. Dr. Ogle, who reported six of the fourteen cases, pointed out that this was most probably due to pressure on the choroid plexus of the ventricles, which, to say the least, is philosophic. However, Dr. Patrick Mandon has reported two cases of the singular African sleeping sickness in which the pineal gland was found greatly enlarged, and the drowsiness observed in this disease is, in marvelous degree, similar to that described by Dr. Ogle and others, lasting for months, and gradually deepening into asthenia, unconsciousness, convulsions, and death.

Other cases are reported, as under observation, and the results will interest neurologists the world over. But meantime, what shall be done about it? Are we to diagnose and then diagnosticate, and still further along indulge our propensities for diagnostication, and then fold our hands and await developments while the funeral bells toll the number of victims of impotent medicine and tell the tales of imbecile surgery?

It is very clear to the writer, that disease of pituitary gland is responsible for acromegaly, and I am equally certain that the pineal body and its affection are the etiologic factors in the African sleeping disease, and I am altogether sure that the former is the moter-wheel of nutrition. and that the latter is the mainspring of the function of sleep.

But the facts lately brought to light are no clearer to the observer than those other facts long familiar to all, that good nutrition conduces to sound, natural, and refreshing sleep, and that regular, sufficient, and undisturbed natural sleep, in turn, is an insurance policy, of high grade, against faulty nutrition. I am sure too that when perfect nutrition obtains, imperfect functionation will not prevail, and, that, when the function of the pituitary gland is perverted, there must be a deranged condition of the nutrition within its own organism, and further, I am firmly convinced that soon it will be clearly shown that the pineal gland is always abnormally nourished when the function of sleep is disturbed, and it is incumbent on medical scientists to put forth all effort to specially nourish these two small, and hitherto considered, vestigual midges, that prevention and cure may result of the derangements of the two greatest of all functions of the human body.

Anatomists know that the human fabric is a hollow body, and that the brain and spinal cord, tubercular in structure, and that the ventricular system of which communicate throughout, and that the third ventricle is a slit-shaped cavity whose floor is at the base of the brain, and whose lateral walls are the internal surfaces of the thalami, and that from the floor of this cavity, or vertical slit, leads a canal called the infundibulum, which communicates with the pituitary gland, lying directly below, snuggled in the sella tursica, and, still further, that behind this ventricle and immediately above its posterior commissure is situated the pineal gland, a small globular body, somewhat elongated from fore to aft, and they are familiar also with the fact that the posterior extremity of the cleft-shaped cavity, or ventricle, communicates with the fourth ventricle through the iter, and that this communication is established with directness with the lumen of the spinal cord. Hanging about the walls of the canals, tubes and ventricles, are folds of the choroid plexus, like the draperies of well ordered drawingrooms, and these are composed of rolls of fine blood vessels, with their walls, and this is the principal source from which the outlying parts of the medullary draw nourishment, the pituitary and pineal glands with the rest. And physiologists agree, that the first step in the process of nutrition, is the æration of the blood, and hence the lungs with the air cells and air on one side, and the blood on the other side of a thin animal membrane and thus the easy transfusion of gases is provided for, and an exchange of oxygen and carbon transpires. And this process is not limited to the lungs, as the oxygen introduced into the blood in this way and manner is carried by the general circulation to the remotest arterials, and thence into the capillaries and there the oxygen in the blood and the carbon in the tissues play at the beautiful game of give and take, when catabolism gives and anabolism takes and the game complete is called metabolism, when the bioplasm brought to the spot by the water-ways of the circulation gives to the tissue new matter in exchange for old matter which has done its do and is attacked by oxygen and carried away in the form of carbonic acid, gas and other effete combinations to be disposed of by the excretory organs of the cosmos. This is simply the exchange of old for new material and all parts of the body require a constant supply of oxygen, but especially must the brain and spinal cord be constantly supplied with this gas, as evidenced by nature's arrangement of the circulatory apparatus around, through, and into them. The transfusion of gases occurs as readily through one animal membrane as another, provided, that all be of the same or approx-

imate thickness. From this finding of facts it is plainly in evidence that a stream of gas, thrown into the lumen of the spinal cord, at any point, will find its way, without hindrance, into the whole ventricular system and hence directly in contact with the choroid plexuses, and with their thin walls in contact with the gas on one side, and the blood on the other, transfusion must take place with facility, and if the gas be oxygen or a mixture of this with nitrogen, nothing but happy results need be anticipated. These gases we have with us always, and may be proportioned one to the other at the pleasure of the operator. And, besides, other gases need not be excluded from the operator's outfit.

The blood that circulates in the plexuses is intended for use in the immediate vicinity, and knowing, as we do, that nitrogenized and phosphorized foods promote brain formation and function, it would be but philosophic reasoning to conclude that these substances introduced directly into the brainy mass, would promote its physiologic growth and function. Built about the four ventricles, like bricks around the basement furnace, are all the sections of the brain that functionate the man, and if we can safely intrude into these, and with the gases in question, we will have gained victories that none may estimate.

It may be done daily and with perfect safety. The process is simple and the apparatus plain and the results amazing.

I venture the prediction, this mode of treating cerebral diseases will, by and by, empty the asylums of many unfortunates, and make, if not raise persons, at least reasonably curable ones, of the hosts of idiots, with whom we now know not what to do. I beg my readers as scientists to give the matter your most serious and careful attention, and studiusly and promptly report in all cases of operation.

Any case of acromegaly or African sleeping sickness can better be treated by doing lumbar puncture and the introduction thrice daily an amount of gas composed of one-third nitrogen and two-thirds oxygen and the gas invariably electrified until the mental symptoms are visibly improved and then gradually increase the nitrogen and frequency of application until the patient will get as much of the gas as the ventricles will safely hold, once in four hours during the day and night, and the mixture contain two parts of nitrogen and one of oxygen. This treatment is rare and easily employed and offers the best chances of success in any case of cerebral affliction when the puncture is skillfully done and the permanent fistula promptly established and suitable tubing neatly adjusted.

A Review of the Different Forms of Treatment of Neurasthenia.*

By Dr. C. W. Van Bergen, Asheville, N. C.

I have in this paper tried to sum up briefly the different forms of treatment of neurasthenia, hoping that the discussion will be of interest and value to all of us.

The collection of symptoms now classified under the term neurasthenia have all long been known to the profession, but were really only described as a distinct disease in 1880 by Beard, although this name was first used by him in 1868.

Running rapidly through the principal stigmates of this disease we find that these are cephalalgia, rachialgia, insomnia, cerebral depression, neuromuscular asthenia and gastric troubles. Of these the most constant appear to be in the caphalalgia (75 %.) and the gastric troubles which are almost constant in a greater or less degree. Among secondary symptoms mention must be made of the cerebral troubles (hypochondria, vertigoes, etc.), motor troubles (pareses, paroxistic paralyses, trembling, muscular cramps, painful in character, etc.) disturbances in the general sensibility, such as hyperesthesia of the scalp and localized areas of the skin, paradoxal susceptibility to the action of certain drugs, disturbances of the special senses, disturbances of the circulation; and lastly, genito-urinary troubles. It is difficult to classify the clinical forms of this disease. The best classification appears to me to be one dependent on the indications for the treatment. The following are a few fairly distinct clinical forms:

1. General or cerebro-spinal.
2. Cerebral Neurasthenia.
3. Spinal Neurasthenia (pseudo-ataxique).
4. Peripheral Neurasthenia.
5. Visceral Neurasthenia Cardiac or Gastric.
6. Feminine Neurasthenia.
7. Hysteria-Neurasthenia, the usual form of Male Hysteria.

Regarding the necessity of treatment of this disease, we may say that while it does not endanger the life of the patient, yet it is distressing and lays him open to other forms of nervous troubles. The treatment to be of any use must be long steady and

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must, as in hysteria, be of a mental form assisted by physical adjuncts, drugs indeed only play a secondary role.

Regarding prophylactic treatment, every child of exactable nervous temperament, and especially those where there is a history of nervous trouble in the family, should be developed physically and held back mentally, that is to say life in the open air on a farm, etc. He should be prevented from indulging in any excessive mental strain such as competitive examinations, etc., and his future career should, if possible, one requiring outdoor life. He should be warned against genital excesses and it should be the family physician's place to try and prevent his marriage into a family of like temperament.

The disease being established, the most important part of the treatment must be intellectual repose; by this we do not mean that an active man should suddenly drop everything, as in many case this would be only opening the doors to hypochondria, but rather a change from his regular profession to some other causing less mental strain. On this point I believe the physician can not insist too much, and moreover I believe that many of the successes quacks have in such cases are due to the minute and even ridiculous rules they lay down, mapping out every minute of the patient's day.

Where travelling is possible it is often of the greatest benefit, filling as it does the above requirements; but on the other hand, I believe that many of the sea-side and other resorts said to be of benefit to such cases and where large numbers congregate, are of detrimental rather than beneficial, as assembling here they discuss their troubles giving rise to more or less auto-suggestion and often return home worse than when they went.

Regarding the choice of a place to send such patients, the general opinion seems to be a mountainous region where the altitude does not exceed 2000 to 3000 feet; higher than this there is often danger of heart complications to which the patients' low condition makes them more susceptible.

Isolation is, in some cases, of benefit, removing as it does the patient from the centre where he has acquired the disease and where the solicitude of his friends and relatives develops, as says Weir Mitchell, his egotism and his desire for sympathy and tolerance; at the same time it causes him to use his mental functions.

Regarding hypnotism we may say, 1st, that few neurastheniques are susceptible, however Bernheim has reported successes in some cases and especially a marked amelioration of some of the symptoms, but according to other observers these do not appear to have been permanent. On the other hand, suggestion in the awakened state may be of real use, but is not this the influence that most physicians exercise consciously or unconsciously on such patients?

Among the physical adjuncts the first place belongs to hydrotherapy, but this must be applied carefully and in a scientific way as otherwise great harm can be done.

The cold douche of short duration and under medium pressure at a temperature of from 70 deg. to 75 deg. and gradually lowered to 60 deg., or where the patient is unable to stand the shock of such a douche the Scotch douche, that is to say, a douche at 86 deg. and increased to between 95 and 105 deg., finishing with a cold duche of short duration, this is especially good in the case of arthritic patients. The wet pack often successfully replaces the above and is the treatment recommended by Ziemssen.

In cases of marked prostration baths at 86 deg. seem to give good results. Baths at 95 deg. keeping the patient in water for a long time seem to calm excitement.

Cases of insomnia aften relieved by the use of a wet vest put on just before retiring and followed in bad cases by an effusion of water at 87 deg. A warm shower 100 deg. with application every now and then to the head thereby causing a slight congestion of the brain also seem to bring sleep.

Gastro-intestinal complications are often greatly relieved by local douches to the abdomen.

Perineal douches or very cold sitz baths (50 deg.) the water to be, if possible, running, greatly relieve spermatorrhea.

In cases of rachialgia the cold jet douche on the painful point, or, where the patient cannot bear the shock, the Scotch douche carried to as high a temperature as the patient can stand.

Electrotherapy is second only to hydrotherapy, and is of use both in the treatment of the disease itself and of its symptoms. All forms of electricity are used. The principal forms are applied as follows:

General faradisation by laying patient on a large electrode connected with the negative pole, the positive pole being a large sponge which is applied successively to all parts of the body. Care must be taken that the current is not too strong. This treatment ought to last about 20 minutes. Beard and Rockwell have found this form most beneficial in cases of neuro-muscular asthenia and bad nutrition.

General galvanisation fulfills the same requirements as general faradisation.

Centralized faradisation is recommended

by Beard in those cases where the nutrition and muscular force are well preserved. It is applied as follows: The negative pole attached to a large metallic plate electrode is applied to the epigastric region, while the positive pole, attached to a large sponge electrode, is applied with light friction to the head, neck, and along the spinal cord, thereby acting on the central nervous system, and on the vagus and sympathetic nerves.

Franklinisation, or static electricity, had been employed for over a century, but had fallen into disrepute, and it was not till within the last twenty years that Charcot demonstrated its usefulness in many forms of nervous troubles. It is usually given under the form of an electro-static bath, the patient sits on a stool with glass feet connected usually with the negative pole, the positive being in contact with the earth, and the patient becomes charged with electricity which radiates to surrounding objects. According to d'Arsonval, who has made a study of the subject from a physiological point, the action of this treatment is to increase the skin's action, the pulse and the respiration, slightly elevates the temperature, increases the quantity of urine and urea excreted. It is also claimed that it increases the oxygen carrying property of the blood and organic combustion, due, perhaps, to the ozone set free by the friction machine.

From a therapeutic point of view it is claimed that this treatment regulates the phenomena of innervation overcoming the depression and calming the hyperesthesia, certainly one of its first effects seems to be to produce sleep.

Physical Rest, is more or less necessary in all cases, but the patient ought to be told by his physician what to do and what to abstain from. In the cerebral forms, except where vertigo is very frequent, and arises from no appreciable cause, there is no special need for prescribing quiet. On the other hand, it is of the utmost importance in all those cases of spinal origin and in those where there is marked gastro-intestinal trouble.

Massage is useful in all cases, replacing advantageously the active muscular exercise and acts moreover on the skin increasing its action. Weir Mitchell uses it to a marked degree in the treatment which bears his name.

Diet, opinions seem to differ on this subject, most American writers following the lead of Beard and Weir Mitchell seem to advocate hyper-alimentation especially with fatty substances, and in cases where this is impossible by the mouth they recommend the use of enemas of gavage with concentrated meat preparation. On the other hand most European writers claim that the amount of food should be reduced to a minimum, assimilation being insufficient. Judging from the results obtained both forms of treatment have their indications.

Drugs, as we have already said, seem only to play a secondary role, moreover, it is as well to remember that many neurasthenics are very susceptible to their toxic action. Huchard has said that neurasthenics present a therapeutic ataxia to them, a term well defining their condition.

Bromides come first in the list, rendering as they do marked service in cases of cerebral excitement. diffuse neuralgia, genital excitement, palpitations and insomnia.

The hypnotics, such as chloral, sulfonal. etc., are all dangerous. as are the preparations of opium, for it is among the neurasthenics that we will find the greater number of morphinomaniacs; moreover the same result can generally be obtained by physical means.

Cannibis Indica and the oxide of zinc are both useful in relieving the cephalgia.

The preparations of iron and arsenic are beneficial in cases where the nervous exhaustion is accompanied by anemia and chlorosis.

Coca, caffeine and sparteine are employed successfully where there is depression and weak pulse.

Ergotin and sulphate of duboisin sometimes help cases of vaso-motor paresis.

Strychnine, either alone or combined with ergotine, give good results in genital neurasthenia with spermatorrhea.

Cod liver oil ranks as a food rather than as a drug, and can be given in large doses, either alone or combined with the phosphates.

Bicarbonate of soda is employed by those who ascribe the origin of the disease to an acid dyscrasia, but the result of this form of treatment appears doubtful.

Subcutaneous injections of organic substances, recognized first by Brown Sequard and C. Paul, have not given the results expected of them, although numerous cases, where a cure or marked amelioration has been obtained have been reported. Among the preparations that have been reported, tried with varied success, may be mentioned: Extracts of the thyroid gland, testicle, suprarenal capsules and cerebral grey matter. Regarding this last I might add the following resume of the cases treated during the first few months of its discovery being one of Dr. C. Paul's assistants at the time. Number of neurasthenics treated, 29. Results: One case of cardiac neurasthenia

cured after a single injection, the pulse increasing from 36 to 60. One case of tachycardia modified after 4 injections from 126 arythmic pulsations to 76 regular pulsations. These might be called the star cases of the remaining 27, 15 presented improvement as regards their muscular strength, aptitude for work and especially in their genital complications, 5 hypochondriac neurasthenics unimproved, and of the remaining 7 the improvement was so slight, if any, as not to be recordable.

Similar preparations to the above are the solutions of phosphate of soda and the injections of glycerine. It may be said of all these extracts that they seem to be irregular in their action, and in many cases the good results obtained are due to suggestion rather than to any action of the preparations.

In conclusion, I think that the general opinion must be that neurasthenia is a disease that presents itself under so many different forms that it is impossible to lay down any given line of treatment, and that in many cases it would be wise if the physician called in to such cases were, before putting his patient under a regular course of treatment, to first put him under observation either without treatment or, if this did not appear to satisfy the patient, by prescribing, what one of my old teachers advised us to give, namely, methyl blue pills, which coloring the urine would satisfy the patient and at the same time show the physician that his prescription was being carried out.

DISCUSSION.

Dr. Brownson.—As regards the treatment of neurasthenia, which was the main topic of the paper, it is evident enough that there is no specific for neurasthenia; there is no special drug or combination of drugs which can be given with any certainty of cure. I was a little surprised in listening to the paper that so little mention was made of neurasthenia affecting the female. The doctor spoke of the patient as "him" almost invariably. My opinion has always been that neurasthenia affected the females far oftener than males, and I suppose Dr. Van Bergen is of the same opinion. It is true that in neurasthenia as in every other diseases we must treat the patient rather than the disease, but rather more so, I should say, in neurasthenia than in most other troubles. I agree with Dr. Van Bergen that drugs should certainly take a secondary role. It seems to me that the neurasthenic case is the hardest one to be treated at home. In the majority of cases, unless the patient is removed from his home and his surroundings, it will be a very hard matter to carry out the treatment, and the prospect of cure is poor. Still, a great many cases have to be treated at home if they are treated at all. In such cases one would have to depend more on drugs than among those of the wealthy classes that can leave home and seek the mountains. I doubt very much, however, whether an elevation of two or three thousand feet would be any better than almost any healthy place. I do not know that mountain air is any better for neurasthenia than many other troubles. The rest cure, or some modification of the rest cure, as advocated by Dr. Van Bergen, and carried out by him so successfully, seems to be the best line of treatment possible. I think that the treatment in private institutions or sanitoriums can be carried out more satisfactorily than elsewhere. The main thing, it seems to me, is to get the patient to eat and sleep. A great many of these cases have little appetites, and absolute anorexia oftentimes, and it is exceedingly difficult to get them to take or digest much food, and in such cases one has to rely on liquid food. Gradually the appetite will improve and you can get them on solid food. The most generally useful drug I suppose is some preparation of bromides and strychnine.

Dr. Paquin.—This is a subject with which I am not very familiar, but it does present some very important questions to the mind of a physician, and I think that which is the most important of all is the causation and pathology back of neurasthenia. There is no question but that what we see is simply the exhibition of the symptoms of the various characters, depending on the failure of the organs to perform their duties. This undoubtedly depends on the failure of the background or goverment thereof. As the doctor has well said, in a very good paper indeed, and I think a very practical and useful one, we have so many forms of neurasthenia that it is almost impossible to enumerate them. We have as many as we have patients, and we may have in one patient a dozen forms of symptoms, but in analyzing them I think we can almost always trace to certain cerebral or spinal centres the cause thereof. Neurasthenia seems to indicate nothing more than an exhaustion of an organic condition or lesion existing in the nerve centres. Now, judging from that point of view almost all treatments that we will apply are symptomatic. The organic principles used by Brown-Sequard and some others have had some benefit, but judging from results obtained since then it seems that these results were due largely to suggestion. The good

results related by Dr. Van Bergen indicate that at the beginning they had this idea. It was supposed and expected that these organic products would go to the centre and nourish the brain or nerve centres responsible for the disease. But unfortunately it aimed at certain points only, and perhaps while they might be useful if combined and were competent to reproduce the deficiency in those nerve centres. Physical treatment, such as massage, hydrotherapy, electricity, all of them have or should have for their purpose the nourishment of the centres which are deficient. Massage will accomplish that to a degree only. The use of electricity, especially for a physician, is meant simply as a stimulant. Galvanism is just the opposite, in my opinion, and does no good whatever. We can scarcely speak of it as a good treatment for neurasthenia. With respect to the application of water, the various forms of water, hot or cold, aim to produce an activity of circulation. It is a very difficult disease to deal with at any time. As to whether it exists more in females than in males I am doubtful. There may exist more of a certain character, but there are more cases in men than are known.

Dr. Lauderdale.—Of course my own experience goes for naught, on account of the few years I have been practicing, but I believe that the disease neurasthenia is more common among men than women. For a long time I was railroad doctor, and I had an immense number of neurasthenics among the men employed as boiler makers, which is a very trying occupation. I believe that the majority of so-called cases of neurasthenia of females will be where the circulatory apparatus is at fault, and not the nervous system.

Dr. Sawyer.—I enjoyed the paper exceedingly, because I have three cases on my hands now. I was also interested in the remark of Dr. Paquin that it is a very hard thing to get at. For instance, one of my patients is a very large woman, weighing considerably over 200 lbs. That is one patient it would not do to overfeed by any means. I have to make her eat as little as possible. One of the others weighs about 100 lbs., and I can hardly make her eat anything. It depends entirely on the trouble. We have to treat the cause first, and then the general symptoms along with it. I have found hypophosphites, also extracts of pancreas and pepsin beneficial in certain forms of nervous dyspepsia. Another thing that has not been impressed strongly enough in my opinion is exercise. I insist upon that very much. You frequently find nervous women, so-called, among those who stay in the house. They will not go out unless you make them, and if you can get them out, roaming over the mountains, playing golf or taking exercise on a wheel, or even taking drives, you find they are benefitted. I have not so much faith in the rest cure as exercise, but, as Dr. Brownson said, you must treat the patient and not the disease.

Dr. Van Bergen.—Regarding my not alluding to feminine neurasthenia, I think it should be taken as a distinct class. I think there is a serious form of feminine neurasthenia that should be set apart. I have seen a good many cases which do not come under neurasthenia. I think that male hysteria is neurasthenia, but I think neurasthenia and hysteria are two different things in women. You will find there is a wearing out, a tired feeling, to use the expression, of the nerve centres in neurasthenics.

Since in practice it is virtually impossible to sterilize living tissues and to maintain them so, it must become the earnest endeavor of the surgeon to attain a continuous destruction of the germs which may be present and an absolute prevention of the introduction of new ones. This is readily and best accomplished by the use of a germicidal dressing consisting of sterile gauze wet with a 10 per cent. solution of Menthoxol, which, while not at all irritant or toxic, acts as a continuous and powerful germicide. The combination of hydrogen peroxide, alcohol and menthol evolves a bactericidal power much exceeding that of the sum of the ingredients. Dr. Beck, of the Charite at Berlin, reports most favorably as to the results obtained with this preparation which was used to irrigate and tampon abscess cavities and as a wet dressing for wound surfaces. Not only was suppuration effectively prevented, but the formation of healthy granulations was stimulated, thus inducing rapid healing. The stability and uniform activity of the preparation are obviously most commendable features.

Abdominal Section under Cocaine.

The Amer. Journal of Obstetrics quotes Hunter Robb, in Anual Gyn. and Ped., as reporting an abdominal section under cocaine anesthesia for retroverted adherent uterus in a case witn marked cardiac symptoms and goitre. The adhesions were separated with but little apparent discomfort to the patient. It was noted that even slight traction on the ovaries produced considerable pain. The patient made an uninterrupted recovery.

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A Suggested Pole-Tester.

Dr. W. J. Morton of New York (Jour. of Electro-Therapeutics) suggests a new form of pole indicator, consisting of a U-tube containing water to which has been added about five drops of a 10 per cent. solution of sulphuric acid. A small globule of mercury rests at the botton of the tube, and a platinum wire immersed at each extremity. When these platinum wires are connected with the source of electrical energy the globule of mercury will be driven toward the negative pole.

According to the Albany Medical Annals Charles Dudley Warner says that the difference between the "faith cure" and the "mind cure" is that the mind cure doesn't require any faith, and the faith cure doesn't require any mind.

A Word to the Wise.

The Quarterly Medical Journal is responsible for the following: Apropos of our present agitation regarding the teaching of physiology in the schools, the following from the *Medical News* is worthy of note: "A school teacher at Port Allegheny, N. Y., the other day, received the following note: 'My boy tells me that when I trink beer der overcoat vrom my stummack gets too thick. Please be so kind and don't interfere in my family affairs.'"

The Medical Monograph says if there is any reason why water should be withheld from a child afflicted with intestinal disease, it has not been satisfactorily demonstrated. One of these children, with a hot skin and parched mouth, restless and fretful, is as fair an indication of tissue drouth as could be desired. Give it water, not a teaspoonful but a tumbler full and you will frequently see a wonderful change. Saturate it with water.

Dr. J. K. Gailey, Clinical Professor of Surgery, Detroit College of Medicine, in giving his experience with "Maltine with Coca Wine," says it is unquestionably superior to anything he has ever tried as a galactagogue. In one case, particularly, the mother was enabled to nurse her child, which she had not done with previous children. He considers it doubly efficacious in that it builds up the woman while stimulating the lacteal secretions.

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CAREFULNESS IN SMALL THINGS.

Some cases of actual practice of recent occurrence will illustrate how much depends on making careful examinations and not neglecting matters of seeming trivial importance.

A man who comes into a sick room and impresses those there that he understands the case almost by intuition, and with great confidence makes a hasty examination and with equal haste deals out medicine or writes a prescription, certainly takes the public eye. He is called a man who can be depended on to tell the friends at once and definitely just what is the matter; and he is felt to be one who can be depended on in emergencies of moment. But the man who, under the same circumstances, takes time to make minute and careful examinations, omitting no point that would throw light on the case, is apt to have people say of him that he seems to lack confidence in himself; and not having that, he does not inspire it in others. What is wanted is one "who knows what he is about"; one that can be trusted in emergencies of moment, that not only knows, and that quickly, but is ready to act quickly.

It is true that these propositions would not hold with all people; it would depend very much on the intelligence of those passing judgment. But it must be remembered that a man does not always practice among intelligent people, and it is people of small intelligence that often kill professionally a very good man.

But to our cases. A man over sixty years of age had a severe attack of grippe last spring, and made a slow and tedious recovery. He was a man of large affairs, occupying a responsible railroad position. A few months after the grippe he began to have some pain and tenderness in a foot that had been crushed during the civil war. He was not sick, and rebelled at being confined to the house. It could not be ascertained that he had injured or sprained the foot in any way, and it was considered and treated as a mild attack of rheumatism. In a week he was so much better that, on a Saturday afternoon, he drove out. In the evening he did not feel so well, and complained of some pain in the left upper arm, but no examination was made of it and very little attention given it. During the early part of the night he suffered a good deal, and about midnight a young man staying with him thought best to send for his physician. When he came he found his patient in great distress; more general distress and restlessness than actual pain. He staid with him some time, and then went home, leaving him some easier. At four in the morning he was called, and immediately on coming sent for a consultant. When he got there he found the arm largely swollen and friction sounds in the chest, believing them to be pleuritic, though possibly cardiac. The man died at about eight o'clock in the morning. No post mortem was made.

Here was a case that on Saturday afternoon was thought to be getting on so well that he went out riding, and was dead the next morning. What can be said of it? That no careful physical examination was made is quite evident, or conditions would have been found that would have placed his physician on his guard. Did he die from sudden rheumatic metastasis? No, there was no heart spasm, and it showed gradually decreasing force till the end came. Did he die from sudden pleuro-pneumonic congestion? The pain and breathing was not characteristic of that. Was there left from his attack of grippe a weakened heart, further depressed by full doses of the salicylates or salol, given for his rheumatism? Quien Sabe? Is it true that salol has a cumulative action, and therefore dangerous? What was the significance of the swollen arm, which the consultant thought was eryspelatous, and what bearing did it have the on cause of death?

At anyrate there are two lessons to be drawn from it, viz, first, that in old people who have suffered an attack of grippe and afterward are attacked by acute disease, a thorough examination of the whole system, including secretions and excretions, should be made at once; and second, that if it is evident that a consultation should he had it ought to take place early enough to be of some benefit and not left till the patient is in the article of death.

Another case: A lady in fair condition was placed on the operating table by a surgeon of acknowledged skill and ability for

salpingitis. After the operation she was pronounced in good condition, the wound properly dressed, and the surgeon had gone down stairs, ready to leave the private hospital in which she was. A nurse did not like the looks of the face, and felt the pulse, which also did not satisfy her. In a few minutes she tried it again, when becoming alarmed, she called the attending surgeon's attention to it. He then immediately rushed after the operator, who, after a hasty glance, said she was bleeding. He tore open the wound as rapidly as possible, and found the abdomen full of blood. She passed into a state of coma, and died the next morning. An imperfectly tied knot was the cause, and a good man up to this time was justly censured for carelessness. Just a little too much rapidity—lack of due care—on the part of a brilliant operator caused the loss of this person's life.

A lady had been suffering with a stomach trouble for some months She had been doctored and dieted till she could not eat any solid food, and was told that she could not be cured, but must content herself with living as best she could on such as she could digest, and try to live as long as possible. Not satisfied with this, she resolved to try another physician, who made a careful examination of all her physical conditions, even to those of her stomach and bowels and renal secretions. In a month she was eating full meals of solid food and gaining flesh and strength.

A bright young physician, recently, in making an autopsy in case of a woman dying of puerperal septicæmia, pricked his finger so slightly as hardly to notice it. In two days there was a fester, and in a week there was an abscess in the axillary space, burrowing under the pectoral muscles. A little inattention, a little too much trusting to the idea that it would not amount to much, and this young man was laid up for some weeks and at one time was in a serious condition,

Such cases might be multiplied, but these are sufficient to show that in the practice of medicine and surgery there is nothing bearing on the case too trivial to be overlooked or passed by.

CANCER OF THE BREAST.

In reference to the treatment of this condition the weight of authority is in favor of what is known as the complete operation in which the axilla is opened and thoroughly cleaned out.

Not a great while ago it was considered good surgery to remove the diseased mammary gland, together with any lymphatic glands in the immediate neighborhood that showed signs of infection, and if recurrence took place no blame at all was attached to the operator. To-day it is different, entirely so. He who merely removes what he can see with his eyes to be diseased in the early stages of cancer of the breast makes himself guilty before the bar of conscience of the death of his patient.

Not that every case of complete removal will get well, for even they have recurrences, but that the incomplete operation is *always* followed by a return of the disease in the scar or in the nearby glands and secondary operations are only palliative.

Halsted in this country, Cheyne in England, and Heidenhain in Germany, have shown some startling results by the complete operation. Billroth, in his day and time, said that he had never seen a patient with mammary cancer cured by an operation.

Since 1890 Cheyne has operated twenty-one times for cancer of the breast, and twelve of his patients lived more than three years after the operation. Nine of these are still alive, and of the three who died only one is known to have had a recurrence.

According to the Medical News there is still room for improvement in the matter of surgical interference, and that improvement must be along the line of more thorough work. Halsted's suggestion that the supraclavicular, as well as the axillary glands, be removed shows which way the wind is blowing. When we remember that a gland may be infected and yet show neither enlargement nor induration, the necessity of thorough removal is more impressive.

To be reasonable then, the danger of removing too much in operating for mammary cancer is slight, and even if done the result is not necessarily serious, but on the other hand, if we remove too little, if we leave behind one point of infection, the danger is imminent and absolute, and the result is death.

THE PLAGUE IN EUROPE.

It does seem that some one has blundered when we read of the appearance of bubonic plague in Southern Europe in this day of sanitation and health Congresses.

We have, as civilized nations, perhaps, been sitting idly by while our brothers in India and the far East were being struck down by the score as though they were not our brothers, and now to show us that we are only bone of their bone and flesh of their flesh, the plague comes uniting us all in a band of sufferers, subject to the same disease.

At Alexandria and Oporto the dread disease has seemingly gained a sure foothold, as it is not confined alone to the seafaring people but has gone among the better class of the town folks generally.

Various cities in Spain and Portugal are said to harbor cases according to the Medical News. Lisbon, the very capital of Portugal is infected. The Exposition of 1900 is coming on apace and may there not be danger in these millions of people gathered from the four quarters of the globe? Paris is a clean city (physically) and we need have no fear of the location of this great show, but the people we must mingle with, touch and breathe upon in that crowded time, who shall tell us of their condition? We will not be obliged to room, or even eat, with an Arab or a deaf man from Thibet, but we will and must mix with them in the crowd. We will scramble through a gate together to catch a car or stand shoulder to shoulder buying a two franc ticket to the *salle de danse*. At any rate we will think about the trip before we go.

The Medical News thinks our chief danger just now to be on our western coast as Europe stands between us and danger from the East, but if the filter gets choked up so early in the day, we had best keep an eye on shipping direct from the Mediterranean.

SHALL THE SPECIALIST PAY A COMMISSION TO THE GENERAL PRACTITIONER?

There is some discussion going on now-a-days in regard to this question. I am a general practitioner, run up on a case of eye surgery, talk to the patient for ten days to get his consent, finally he gives in and I take him to an eye man who charges $50 for the work.

Now should he pay me $17.50 for bringing him the case?

Suppose I write prescriptions here in town, and by a little skillful talking have them all sent to one drug store, should the druggist save me 10% of the selling price? These cases differ somewhat but the point is this, the patient should pay the druggist for his medicine and the doctor for the prescription, and the patient should pay the specialist for his services and the doctor for his attention. Certainly it is not right for the specialist to pay a commission, it is in every way lowering to the dignity of the profession.

Of course the doctor should have a fee, his time and attention should be paid for *by the patient*.

Otherwise the practice of medicine comes down to the plane of buying cottor-seed and selling fertilizer, and I will carry my cases of appendicitis not to the best surgeon, but to the one who pays the best commission and my eye cases will go to the man who divides half of what he pulls from the unlucky patient.

But it all comes from the patient anyway. What is the difference between charging a patient $20, so the specialist only gets $30, or the specialist charging the patient $50 and giving me $20 as the poor man only has $50 to pay for all concerned? A great deal of difference does it make. It is one of those little things that go deep down into the very heart of the matter and touches the determining power of good or evil, *motive*.

It costs money to be a specialist, I mean a real specialist, and they are entitled to a good fee. It costs more to send a package by express than to send it by a negro boy.

It costs money to be a general practitioner in a cotton country, but if every practitioner could collect for what he does he could retire on his income in 20 years and because he can not always collect his bills in full is no reason why he should attempt to collect a few dollars in an underhand way.

If the specialist must pay a commission, it means that the doctor has been doing some work for the specialist. Doctors must work for the best interests of their patients and *the patients should pay for it*.

THE WIDAL REACTION.

The clinical diagnosis of typhoid fever is difficult in the early stage and so all helps in the way to a decision are valuable.

The Widal reaction or test seems destined to be the most valuable of all. The test consists simply in the demonstration that the blood of patients suffering from typhoid have an agglutinative action on the typhoid bacillus. This peculiar quality of the blood may be retained for some time after recovery from an attack of fever, in a few cases five years and even longer. This persistence may interfere with the practical value of the test in persons who have had fever in the past two to five years.

According to the Medical News, Cabot reports 5798 cases of typhoid, gathered from many sources both at home and abroad in which positive reactions occurred in over 97%, a most remarkable record.

The same authority gathered about as many cases of diseases other than typhoid, in which the reaction did not respond in fully 95%, and of the remaining 5% it is very likely that several of them had had typhoid previously.

However, cases of influenza, malaria,

pernicious anemia, and acute miliary tuberculosis have all contributed instances of reactions.

And these are the cases that are not infrequently mistaken clinically for typhoid, and in dealing with them we stand most in need of diagnostic help and assistance. The Widal is not near so frequently found in other diseases as is the diazo reaction of Ehrlich nor it it so difficult, though far more reliable than the blood count.

Like all other valuable things, it has certain limitations; it does not appear during the first few days but it is manifest before the eruption appears. In rare cases it may not appear before the fourth or fifth week.

As has been already said, a previous attack of fever will interfere with the value of the reaction and it is frequently not present if the blood is withdrawn while the patient is at the point of death.

WONDERFUL PROGRESS OF MEDICINE AND SURGERY.

If the late war with Spain had accomplished no other purpose than to demonstrate the magnificent resources of the medical profession and the wonderful progress of medicine and surgery during the last thirty years, it is worth all the lives that have been lost, all the money that has been spent, all the vacant chairs, all the aching hearts, all the sacrifices personal and general, to know that the profession of our beloved country is capable and willing to cope with any conditions or emergencies that may arise; it is worth all that to know that our boys who so gallantly met the enemy under the burning sun of Manilla or Santiago have uttered no word of complaint against the men who were charged with the duty of caring for their wounds or directing epidemics from their paths, nor is there one incident of shirking a duty or a command, no matter how hazardous, no matter how disagreeable, our profession won the highest encomium, not only from those who were the recipients of our generosity, skill and untiring devotion, but from the press of this country and Europe; no matter how much certain departments may have been criticised, we have failed to note one criticism emenating from a source worthy of notice directed against the medical men in the field.

Our space is too brief to admit of personal mention, but where all distinguished themselves with equal skill comparison would be merely repetitions. When we saw men returning from Cuba, weak, emaciated, broken in spirit, we knew that a skillful hand had been at work everting death, when we saw a medical man returning from Cuba, emaciated, weak, broken in spirit, we recognized a hero of heroes, we recognized a man whose untiring zeal and devotion to his profession, to the work entrusted to him admitted of the soldier's return, though bronzed by tropical suns, wasted by fever, eyes sunken, shoulders bent, steps weary and slow, we recognized a brother and wept.

ELIMINATION.

In every science and art certain principles or laws are recognized and established. They are the landmarks for those who study the science or practice the art in any domain of knowledge or art.

There is great mental satisfaction in having a system, even should it prove to be founded in error. These laws or the principles are the rudders which guide us through the great ocean of knowledge, and should always be kept in view if we would not be strained by the way. A knowledge of mechanical or other agents or influences which affect the animal organism must also, have a principle of action, and this principle, let it be physiological or therapeutic, must be kept in view by those who make any pretensions to a knowledge of the science or a practice of the art of medicine.

As it is generally agreed that we have few specifics for the cure of disease, then it must be conceded, or it is rational to conclude, that the natural or physiological functions of the body must be the agents and channels by which disease is to be gotten rid of, and this we call excretion or elimination.

This guiding principle is not kept in view as we think it ought to be in the treatment, especially of the infectious diseases.

In this class of diseases it is generally believed and conceded that they are due to disease producing germs, and the poisons generated by them and the most obvious and rational thing, we are too ready to conclude is to go to work in the most direct way to destroy the active producing cause just where we find it.

But by this method multiplied observasion and experience has proven a thousand times over we cannot accomplish this result. The most that can be said of this method is that some kinds of germs do not multiply so rapidly, but they cannot be destroyed in the body by any agent without destroying the vitality of the tissues or influencing detrimentally life itself.

With these facts before us, what shall we do to favorably modify the disease action set up?

Elimination is the guiding principle and must ever be kept in view.

All trustworthy observation and experience in the disease proves this. Every advance by every method is along this route.

I care not what infectious disease, whether it be an auto-infection, typhoid fever, epidemic or sporadic dysentery, pneumonia or every form of acute trouble which is due to a morbific agent of any kind and disturbs the balance of health in any way.

Nature points the way. What infectious disease but what produces disordered action in the bowels, generally looseness of the same sooner or later? What is the interpretation?

Either it is due to some agent which irritates the mucous coat of the bowels themselves or the blood vessels whose business it is to absorb from the bowels, have reversed their action and are pouring out serum and along with it any morbific matter which may be brought to them by that great system of sewerage of the tissues themselves, the lymphatics, whose knowledge of the presence of the enemy has stirred them up to increased and more energetic action.

What is the lesson to be learned? Favor action on the bowels, the skin and the kidneys, for they also are usually disturbed.

Assist nature in her masterly effort by those agents which stimulate the several eliminative functions and you shall and will be considered her trusted hand-maid, and she will reward you a thousand times over for obeying her laws and assisting her in her hour of deepest trial.

But how many try only to suppress the symptoms produced by desturbed action in the system? In place of favoring elimination which is nature's method, we suppress every effort in this direction, imagining we are assisting in curing the disease, when we are opposing the very method which would, if favored, bring about a cure.

It would be far better to fold our hands and let nature have the battle to herself, rather than hamper her efforts in this way.

IRON AND MANGANESE IN DYSCRASIA.

Blood is the soul of the physical man, a vital and essential part of his body, and an indispensable condition of life and strength.

We say sometimes that exercise makes muscle, but in reality blood makes muscle.

The power of a strong man is in his muscle, because the busy, healthy blood has placed it there, the muscle is simply the storehouse, the maker is the blood.

But not all blood is strengthening, any more than all food is wholesome, or all medicine is palatable. Some blood is bad, producing weakness instead of strength, making disease instead of health, causing pain and wretchedness instead of joy and happiness.

But the hands and feet of the blood are the corpuscles, they carry power in their arms, they furnish motion by their presence. So blood without the proper amount of corpuscles is like a maimed, helpless man without arms and legs, without power to help himself or others.

Life and strength are, after all, only helpfulness, otherwise weakness comes and later disease, and lastly death.

If we may eliminate from among men all the diseases due to an impoverished condition of the blood, we will have left such things as do not terrify.

The blood is the life, and when it is deficient in quality the life is diseased.

Of all the remedies in the pharmacopœia, iron stands out in bold relief as an exceptional tonic and reconstructive for the blood, so it has stood for many ages.

Our forefathers used it with confidence and if this confidence was ever violated it was due to the crudeness of their chemistry rather than to any feebleness in the drug. In this day of progress and scientific advancement we combine manganese and iron in one medicine. They work together in the body and in the blood. and as two heads are always better than one, so two workers are better than one. They have allied functions in the nourishment of our bodies.

While iron is powerful in building up the blood and restoring the corpuscular element, its power is more than doubled when manganese is associated with it.

And so when our fathers gave iron alone, we give iron and manganese; where they used the crude metal, we use the organic preparation, and when they counted the pulse we count the corpuscle. Perhaps, then, when they surmised, we are sure, and when they relieved, we may cure if we will only use the knowledge before us.

The preparation of iron and manganese sold by the M. J. Breitenbach Company, under the well known name of "Pepto-Mangan," is a perfect example of the efficiency of our modern chemistry. This preparation is palatable to the most delicate and enfeebled, and supplies directly to the hungry blood the oxygen-carrying and hemoglobin-producing elements.

It invigorates and produces a sense of well-being, not by any deceitful stimulation of the nervous system, but by its direct action upon the vital fluid, supplying its want and ministering to its need.

The indication for iron and manganese, or Pepto-Mangan, is found in simple or chlorotic anemia, amenorrhea, chorea, rickets. convalescence, extreme old age or weakness.

In surgery Pepto-Mangan should be given one week before all serious operations, especially those in which the abdominal cavity is opened. By so doing the patient will react better from the shock, and the chances of primary union will be increased.

In all cases where the blood is poor, deficient in hemoglobin and in red corpuscles, Pepto-Mangan is indicated, and we may feel sure of certain and speedy results. The most skeptical can be convinced of its power for good if he will only use the blood count before and after using for awhile.

BOOK REVIEWS.

Progressive Medicine—Volume III. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 11 illustrations. Lea Brothers & Co., Philadelphia and New York.

The third volume of "Progressive Medicine" presents carefully prepared and exhaustive papers upon the following subjects:

Diseases of the Thorax and its Viscera including the Heart, Lungs and Blood Vessels.—By William Ewart, M.D.,F.R.C.P., Physician and Joint Lecturer on Medicine, St. George's Hospital, London.

Diseases of the Skin.—By Henry W. Stelwagon, M. D., Clinical Professor of Diseases of the Skin, Jefferson Medical College, Philadelphia.

Diseases of the Nervous System.—By William G. Spiller, M.D.,Professor of Diseases of the Nervous System in the Philadelphia Polyclinic.

Obstetrics.—By Richard Norris, M. D., Instructor in Obstetrics,University of Pennsylvania, Philadelphia.

Progressive Medicine gives in an interesting and original manner a full and clear account of all practical advances made in every department of medicine and surgery during the year.

The author of each department is a man of distinction and eminence in his department and whose reputation gives ample assurance of accuracy and completeness.

The different writers in presenting their subjects are brief and to the point—the first topic discussed is by William Ewart,M.D., and it is upon the Physical Methods of Diagnosis. The author has presented this in a most thorough manner yet in a brief way.

The section on Pulmonary Phthisis and Tuberculosis is very fine and most complete. In the writings of this work the personal impress of the contributor marks every page. The volume is beautifully printed, handsomely bound and abundantly illustrated in the best possible manner.

The International Text Book of Surgery. By American and British Authors. Edited by J. Collins Warren, M.D., L.L.D., Professor of Surgery in Howard Medical School, Surgeon to the Massachusetts General Hospital, and A. Pearce Gould, M.S., F.R.C.S., Surgeon to Middlesex Hospital, Lecturer on Practical Surgery and Teacher of Operative, Middlesex Hospital Medical School, Member of the Court of Examiners of the Royal College of Surgeons, England. Vol. I. With 418 Illustrations in the Text, and 9 Full Page Plates in Colors, Octavo, Cloth, of 948 Pages $5.00 Net, Philadelphia. W. B. Saunders, 925 Walnut St., 1899.

This is an excellent addition to the list of excellent works on Surgery already in existence.

The field of surgery is wide and broad and there are many skilled laborers at work. We may learn something from all of them if we will only take time to hear what their experience tells.

The International Text Book will be in two volumes, the first being devoted to general and operative surgery. The second volume is now in press and will be ready January 1st., 1900, and will be devoted to special surgery.

The contributors to the first volume are: Ernst, Warren, Cabot, Fowler, Van Hook, McBurney, Hartley, Da Costa, Gay, Pfaff, Pilcher, Warbasse, Lund, De Forrest Willard, Bradford, Lothrop, Monks, Tiffany, Richardson, Burrell, and Hamilton in this country; Spencer, Burns, Sutton, Makins, Cheyne, Parker, Golding Bird, and Smith, of England, and Cameron, of Canada.

Surgical bacteriology is well told in the opening chapter, the writer getting down on a working basis.

The chaper on minor surgery is also exceedingly well written and is chock full of practical sense for the everyday surgeon.

Fractures are considered in the X-Ray light and the pictures are well executed. But the fact is, we have not found a dull chapter in the whole book.

If you care for a modern work on this modern subject, no mistake will be made in

buying the International Text Book of Saunders.

The mechanical part of the work is first class in every particular.

A Text-Book of Physiology. By Winfield S. Hall, Ph.D. (Leipzig), M.D. (Leipzig), Professor of Physiology, Northwestern University Medical School, Chicago; Member of the American Physiological Society; Fellow of the American Academy of Medicine. Illustrated with 343 Engravings and six colored plates. Cloth. octavo, 612 pages. Lea Brothers & Co. N. Y. and Philadelphia. 1899.

Physiology is constantly advancing and many of us need a new standard work on this subject. The nervous system, a vast unexplored mine, is being steadily worked and developed and every year we see something of importance added to our store of knowledge on this important question.

The book before us is new and up-to-date. The text is consise and readable. The author does not wander off in some wilderness where we cannot follow but presents the facts in a reasonable way and in a language that we understand. The physiology of the cell is well given with its relation to the phenomena of life. The subject throughout the book is presented as a distinct and separate one, and so we do not loose time reading around the edge of Anatomy, Chemistry and Physics under the name of Physiology.

The logical relation of each chapter is well maintained and we can heartily recommend this book to the student and the practitioner.

The press work and binding make a finished work.

The Nervous System and Its Constituent Neurones, Designed for the Use of Practitioners of Medicine and of Students of Medicine and Psychology. By Lewellys F. Barker, M. B. Tor., Associate Professor of Anatomy in the Johns Hopkins University and Assistant Resident Pathologist to the Johns Hopkins Hospital. With Two Colored Plates and Six Hundred and Seventy-Six Illustrations in the Text. Cloth, Octavo, 1030 Pages. D. Appleton & Co., New York, 1899.

Since Golgi's contributions to the study of the nervous system it has been necessary to reconstruct our knowledge of the nerves. and though there is much uncompleted work, still we may see the faint outline of a finished building.

Golgi's method was first described by its inventor in 1873, and, like other important discoveries, no attention was paid to it for twelve years, but since 1886 its value and worth has been recognized and acted upon.

So it comes to pass that a special work must be written on the nervous system and only a large volume will now contain what has been learned in the past ten years.

Dr. Barker has faithfully depicted the development of this subject in this volume. The contents are divided into the following sections: 1. The History of the Development of the Neurone Concept. 2. The External Morphology of Neurones. 3. The Internal Morphology of Neurones, 4. The Histogenetic Relations of the Neurones. 5. The Neurones as the Unit in Physiological and Pathological Processes. 6. The Group and Chaining Together of Neurones in a complex nervous system like that of man and higher animals.

This last section comprises more than half the book and is but the practical application of the neurone theory.

No man who desires to be abreast of the times should fail to read this book. The gradual development of the subject, new to many, makes it easy of comprehension. The publishers bring out the work in a lavish manner, sparing neither pains nor expense.

Minor Surgery and Bandaging. By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Pennsylvania. New (4th) ed. In one 12mo. volume of 594 pages, with 502 engravings, many being photographic. Cloth, $3.00 net. Lea Brothers & Co., Philadelphia and New York.

This is the fourth edition of this book and little introduction is needed for a work which, like this, has achieved almost universal usage throughout Medical Colleges of this country. In this edition the subject-matter has been carefully revised, and much new material has been added, including a chapter upon Surgical Bacteriology. The author has presented in as concise a manner as possible, a description of the various bandages, surgical dressings, and minor surgical procedures which are employed in the practice of surgery at the present time.

The preparation and application of the antiseptic dressings now most commonly used have also received full consideration. The article upon Bandaging is fully illustrated with cuts which will prove of value as furnishing an accurate representation of the most important bandages used in surgical practice. Owing to the fact that much attention is now directed in our medical schools to operative procedures upon the cadaver the author has deemed it advisable to add a section upon such operations as can with advantage be practised upon the cadaver. These include Amputations,

Ligations, Excisions, the Introduction of Sutures, Intestinal Anastomoses, Tracheotomy and Intubation, and Operations upon the Bones, Tendons, and Nerves. Both in text and illustration this is the best obtainable manual on this subject. The print is fine and the binding excellent.

Diseases of Children. A Manual for Students and Practitioners. By George M. Tuttle, M.D., Attending Physician to St. Luke's Hospital, Martha Parson's Hospital for Children, and Bethesda Foundling Asylum, St. Louis. Illustrated with Five Plates in Colors and Monochrome. Cloth. 12 Mo., 386 Pages. $1.50 Net. Lea Brothers & Co., Philadelphia, and New York.

This work is one of Lea's Pocket Text Books and is edited by Dr. Gallaudet.

This manual will prove of decided benefit to the beginner in the study of pediatrics, The subject is covered fully yet concisely and the author has seen fit to deal more largely with the physiology of infancy and artificial feeding than with the pathological states found in childhood. A very brief notice is given those conditions that differ in no wise from the same diseases in adult life.

The infant at birth is the opening chapter and it is followed closely as development goes on.

The book is bound uniform with the others of the series and the set will make a striking and valuable addition to any library.

Coakley on the Nose and Throat. The Diagnosis Treatment of Diseases of the Nose, Throat, Naso-Pharnyx and Trachea. For the use of Students and Practitioners. By Cornelius G. Coakley, M.D., Professor of Laryngology in the University and Bellevue Hospital Medical College, New York. In one Handsome 12mo. Volume of 536 pages with 92 Engravings and 2 Colored Plates. Cloth, $2.75, net. Lea Brothers & Co., Philadelphia and New York.

This is a most excellent manual upon Diseases of the Nose and Throat, answering the needs of students as well as practitioners. The diseases affecting the nose and throat are numerous and common, and it is not always convenient for patients to consult the specialist, and as a consequence the general practitioner who provides himself with this manual can easily and successfully treat all such cases coming under his care, thus proving himself an up-to-date physician to his patients and pecuniary beneficial and satisfactory to himself. The author has seen fit to devote special attention to the more practical sections, viz., those in exmination, diagnosis and treatment. The writer lays special stress upon the appearances found upon examination of a patient and that microscopical and bacteriological investigations should be made when the nature of the morbid process is in doubt. Sufficient guidance in these directions will be found in the book.

As regards treatment the author has given us that which he considers the very best, selecting both from a medicinal and operated field and full details are given for the benefit of those who have not had the advantage of personal clinical investigation. At the close of the work a special chapter on Therapeutics has been added. Under this section will be found a classification of drugs according to their local actions and a number of useful prescriptions, together with indications for their employment. The book is neatly bound, prettily printed and peculiarly adapted to the needs of students, and forming a complete and trustworthy library on the subject.

Quiz-Compends, No. 7. A Compend of Gynecology. By William H. Wells, M. D., with Illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1899.

This compend contains 279 pages and maintains the high character established by this series of compends. There have been a great number of changes made in this new second edition, particularly is this so in operative gynecology. Antisepsis in gynecology is first considered in a short, concise way. All of the various topics appropriate to this subject are concisely and clearly treated. Properly studied and applied these compends are very useful.

Quiz-Compends No. 8. A Compend of the Diseases of the Eye and Refraction, Including Treatment and Surgery, By Geo. M. Gould, A.M., M.D., and Walter L. Pyle, A.M., M. D., Second Edition, P. Blakiston's, Son & Co., 1012 Walnut St., Philadelphia, 1899.

These compends are very useful and handy little works upon the different subjects treated. This one upon the eye describes simply and concisely the most important subjects in ophtholmology, giving the novice all the necessary preparation for an intelligent comprehension of the more exhaustive literature of this branch of medicine. For the benefit and help to the general physician, especial attention has been given to the principles and practice of refraction; to muscular anomalies; to the diagnosis and differentiation of the common ocular diseases, and to local ocular therapeutics. It contains a table of abbreviation, a glossary, and a complete index.

Over 1,000 Prescriptions or Favorite Formulæ of Various Teachers, Authors and Practicing Physicians. The whole being carefully indexed, and including most of the newer remedies. Cloth. 300 pages, postpaid $1.00. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

This is the second edition of this handy manual, and is just from the press; it has nearly 100 pages of new matter added. As the practical worth of this kind of a book consists in its having a handy and complete index, this book has it, for some 16 pages of small type are devoted to this object, and some of the lines have as many as 20 different references to as many different formulæ; this would go to show that there are about 2,000 different prescriptions given in the volume. In other words, taking the price of the book into consideration, [$1.00], it would argue that there are furnished some 20 different prescriptions for one cent. We notice that many of the newer remedies are among the prescriptions, thus bringing the treatment of many of the diseases down to date. Both old and new writers of both home and foreign countries are represented among its formulæ.

Blank pages are frequently introduced, so that a handy place is furnished for recording any new prescription that one might wish to preserve. The printed index will index all such pencilled additions, if care is taken to write them opposite a page with a formulæ for similar disease; this would then save the bother of indexing the pencilled additions.

Transactions of the Vermont State Medical Society, 1898. Published by the Society.

The meeting of this Association was held at Burlington on Oct. 12th and 13th. Dr. S. E. Lawton is President, and Dr. D. C. Hawley is Secretary.

Many very valuable and interesting papers were read and discussed at this meeting. The Treatment of Uncontrollable Vomiting of Pregnancy, by Dr. Geo. Davenport, deserves special mention; also the paper on the Artificial Feeding of Infants, by Dr. S. C. Holcombe. The volume is well bound and neatly printed.

Transactions of the State Medical Society of Wisconsin. For the year 1899. Constitution and By-Laws and List of Members. Madison, Wis. Tracy, Gibbs & Co., Printers. 1899.

These transactions of five hundred and seventy pages, make a most complete and substantial volume. Dr. W. T. Sorles, of Sparta, is President, and Dr. C. S. Sheldon, of Madison, is Secty. The first seventy pages of the work is devoted to minutes of the session, the list of new members and the president's address. Many valuable and interesting papers will be found in this volume. The Vaginal Route, by Specht; Pneumonia, by Fuchs; Inflammatory Rheumatism, by Neilson; Fever, by Sarles; Antisepsis, by Mills, are most worthy papers read at this session. There are many other papers of merit. The volume is nicely bound and clearly printed.

LITERARY NOTES.

The "New Lippincott" Magazine for October, 1899.—The complete novel in the "New Lippincott" for October is called "Love Across the Lines," by Harry Stillwell Edwards. It is a story of the war in Virginia, in the vein of Captain King, but with a difference. A unique marriage ceremony in a dark room between a man and woman who meet then for the first time, opens the story, and the original and ingenious plot sweeps on to a strong climax so convincingly related that the reader spontaneously laughs and weeps with the fetching heroine in her joy and misery. It is a striking and powerful tale from a pen which has already won applause in short fiction.

In a brilliant article in the "New Lippincott" for October, I. Zangwill has expressed his sage but fantastic views on "Zionism."

Beside "Love Across the Lines," the complete novel, by Harry Stillwell Edwards, in the October number of the "New Lippincott," there are some remarkably good short stories contributed by pens too well known to need more than passing mention, to compel attention. Paul Laurence Dunbar has written a slave story in his very best vein of humor and pathos, entitled "The Strength of Gideon." "The Journey's End," by Beulah Marie Dix, is a dashing tale of Roundhead Times, characteristic of the author of "Hugh Gwyeth," and a brief humorous sketch by Cy Warman, called "Ar' Ye Woth It?" posseses his rare trait of homely fun.

A thrilling description of "The Biggest Little Fight in Naval History," by George Gibbs, is the second article on Naval Fights by this writer. It deals with Decatur's fight in the harbor of Tripoli.

The author of the charming "Kitwyk Stories," now Mrs. John Lane, writes lovingly of "Gilbert White of Selborne;" accompanying the paper are several quaint illustrations by Edmund H. New.

"The Common Insects of Autumn," by Belle S. Cragin, tells just what people like to know about the habits and haunts of our

little neighbors. A brilliant member of the smart set in London, under the pen-name "Ignota," gives some new, interesting, and seasonable facts about English high-life and hunting, in a paper called "Scottish Sport and Autumn House Parties."

The verse of the month is contributed by Samel Minturn Peck and Clinton Scollard.

The articles in the October Forum are of great interest. a number being written by widely known men. Senator J. C. Burrows forecasts the Presidential contest of 1900 with a paper on "This Year's Elections: Their Bearing on the Presidential Election." Comptroller of the Currency, Charles G. Dawes, writes a paper of much importance on "The Present Outlook for Currency Reform." The Dean of Canterbury, F. W. Farrar, speaks with no uncertain sound upon "The Sunday Question." Oscar P. Austin, Chief of the United States Bureau of Statistics, gives an interesting account of the rapidly growing "Commercial Japan;" Prof. Sohm, of Leipzig, a member of the Code Commission, tells of the true significance of "The Civil Code of Germany;" and Charles Howard Shinn considers, in his article on the "Literature of the Pacific Coast," the prominent part that Californian writers have taken in the department of fiction.

The story of "Dame Fast and Petter Nord," now running as a serial in the The Living Age, gives American readers their first opportunity to become acquainted with the brilliant Swedish writer, Selma Lagerlof, as a writer of short stoies. "Dame Fast and Peter Nord,' is a quaint story, with a suggestion of Hawthorne in its style and theme. It is translated for The Living Age by Dr. Hasket Derby.

The editor of the American Monthly Review of Reviews (October) analyzes the South African situation, comments on the Dreyfus trial, reviews the work of the Chicago conference on trusts, and discusses Mr. Bryan's position on the silver question and the general political issues in the State campaigns now in progress.

ABSTRACTS of One Hundred of the Leading Articles of the Month.

Cardiac Injuries.

All cases of gunshot wounds of the heart die, is the experience of H. C. Wyman in the Medical Monograph, but he has had some cases of cardiac injuries which did not terminate in death.

The symptoms following a wound of the heart usually appear early, such as syncope, great pain in the region of the wound, pallor of the face, small rapid pulse, and quick, jerky respiration continuing in spite of treatment for syncope; there may be, as in the case mentioned, an intermittent welling of blood from the entrance wound synchronous with the action of the heart.

The latter symptom, however, would only indicate that there was free blood in the cavity of the pericardium, which was being pushed out by the beating of the heart.

In insufficient blood supply to the brain, not relieved by the ordinary means, should suggest a wounded coronary artery, or puncture, or perforation of the heart.

The wound in the chest wall should be enlarged as soon as possible, and the bleeding vessel ligated, or the wounded heart muscle sutured. The surgeon may gain valuable experience by practising on dogs.

Most wounds in the cardiac region, in which the patient lives long enough to require the services of a surgeon, only involve the pericardium and the disordered action of the heart is due to the presence of blood or air in the heart case.

The fact that the pericardium is a serous membrane with two portions like the peritoneum and that it is liable to same inflammations should not be lost sight of.

In operating on the pericardium be most careful in avoiding infection.

The probe and finger he does not recommend; if blood and clots are present their removal will give relief, if the blood continues to flow into the pericardium, enlarge the wound and secure the bleeding point.

No drainage, but make sure that the membrane is clean and free from clots, the ligatures may be of silk or catgut and should be cut short, his preference is for silk.

Interrupted sutures should include both chest wall and pericardium, owing to their intimate anatomical relation.

Bowels should be freely opened with calomel and salines to guard against pericarditis and endocarditis, as a septic inflammation of the pericardium may extend to the endocardium.

In enlarging a wound care should be taken to avoid opening the pleura, if it be not already opened.

Hemorrhage should be controlled as fast as it occurs.

If the wound of entrance is at a point remote from the pericardia, it is better to open the pericardium in the fourth intercostal space near the sternum.

The fourth costal cartilage may be divided

close to the sternum and pulled upward to give more room.

The index finger should be passed beneath the apex to raise it up and steady it while the bleeding point is embraced by a curved needle carrying a ligature.

Treatment of Nose-Bleed.

In the majority of cases of nose-bleed the bleeding comes from the septal artery or one of its ramifications and often direct pressure can be made on the bleeding point, says Gallaher, in the Colorado Medical Journal for September.

A piece of cotton, dry or saturated with 4 % solution of cocaine applied directly to the bleeding point will very often stop the hemorrhage.

The peroxide of hydrogen is recommended as being the simplest and most effective means of controlling nasal hemorrhage. At least one drachm of pure peroxide is injected into the nose with a syringe or a common medicine dropper and immediately afterwards close the anterior nares with the finger and thumb, the posterior nares is closed at the same time by holding the mouth open with the head erect. A clot is formed at once and the gas formed exerts considerable pressure which should be confined for five minutes and the clot should be allowed to remain for awhile. In case fullness is felt in the ear the anterior nares should be released. Cotton saturated with peroxide may be used in a similar way.

In case of failure with the above methods, he advises plugging the posterior nares and packing the nostril to the anterior nares.

Instead of using Bellocq's canula, he uses first a piece of cotton as large as the patient's little finger, to the middle of this a string is tied, the cotton is then introduced through the anterior nares until it appears in the throat, when gentle traction on the string doubles up the cotton, firmly plugging the posterior nares.

Antiseptic power is then blown into the nose and it is then packed with long narrow strips of sterile gauze, the string being held tight all the time. If hemorrhage has not been alarming take out in 24 hours, in graver cases in 48 hours. In removing the gauze, it should be saturated with boric acid solution, followed by a 2 per cent. solution of cocaine. Liquid vaseline can be used freely before attempting to withdraw the posterior plug.

In cases of deflected septum occluding the anterior nares, a pledget of cotton may be tied to a string and passed back of the palate and packed into the posterior nares with the finger.

Bernay's artificial sponges he does not consider of mueh advantage in hemorrhage, but they can be used after operating when the vulcanite or silver tube is not tolerated and for fracture of the nasal septum.

Sounds in Cardiac Pathology.

Wm. E. McVey, in the Medical Monograph, discusses sounds in the determination of cardiac pathology.

The first sound is caused by the vibration of the chordæ tendinæ and by the closure or vibrations of the auriculo-ventricular valves; two other doubtful causes are, the contraction of the muscle and the friction of the blood current.

Dr. McVey does not advocate over-refinement in diagnosis, but considers it more important to have a clear conception of the condition of the heart muscle and cavities than the definite location of a valvular lesion.

Valvular diseases have but little influence on the health when the muscular condition of the heart remains sound. Valvular defects are quite frequently found unaccompanied by any disturbance of health or any serious alteration of the heart muscle or disturbance of its normal function.

On the other hand, many very serious and grave pathological changes in the heart may occur without the physical signs of valvular defect being manifest. So then a differential diagnosis of a valvular lesion alone is inadequate.

There may be marked mitral deformity and no murmur, or there may be a distinct sound, but the post mortum reveals a healthy valve.

The relation of aortic murmurs to lesions of the aortic valve is well defined, but the mitral murmurs are not so certain in their indications.

He does not think that the blood passing through a narrowed or obstructed mitral orifice will produce a sound because the muscular power of the auricle is very feeble, the duration of the contraction is extremely short and there are no valves at the orifices of the pulmonary veins.

Apex beat murmurs cannot be ascribed strictly to valvular lesion, nor can we limit their classification to "direct" and "regurgitant," for there are intraventricular murmurs which are not valvular.

To indicate regurgitation the murmur must be heard between the lower border of the fifth and the upper border of the eighth vertebræ at the left of the spine, provided that the transmission of the sound be not interferred with by thickness of the integu-

ment or other condition of parts. When not heard in this locality but in the left axilla and region of the scapula, it is a non-regurgitant murmur, contrary to the teachings of Bellingham and others.

A mitral diastolic murmur is due to physical conditions external to the heart.

One of the important changes of the various heart sounds is alteration of intensity and duration. Accentuation of the aortic second sound indicates increased arterial tension or hypertrophy of the left ventricle. A weakened aortic second sound usually means degeneration of the heart muscle and a feeble ventricular contraction.

Accentuation of the pulmonic second sound indicates an increased tension of the pulmonary circulation and hypertrophy of the right heart and usually accompanies mitral lesions; enfeeblement of this sound, especially if it follows accentuation, indicates failure of the heart muscle and is of serious import.

Accentuation of the first sound accompanies hypertrophy, and enfeeblement of this sound indicates degeneration of muscle, myocarditis or dilatation.

Reduplication or doubling is another important change in the heart sounds.

Doubling of the first sound may be caused by hypertrophy of the left auricle, probably accompanying a mitral lesion,

Reduplication of the second sound may occur in mitral stenosis, obstruction to the pulmonary circulation, dilatation of the right heart or myocarditis.

The Radical Cure of Hernia.

Coley, in the Medical News, after reviewing the history of the operative treatment of hernia, gives the present status of the radical cure.

The first operation was done by Celsus in the first century A. D., later by Heliodorus, in a manner that actually surpasses many that are now done 1700 years later. Having been abandoned and forgotten it was revived by Paul, of Ægina in the seventh century, who introduced a new and radical step, castration.

During the middle ages, the three principal methods of operating were: Exposure of the sac and closure by various forms of ligature; inclusion of the sac and scrotum either by needles or by sutures; cauterization applied in various ways.

In the latter method exfoliation of the bone is made a necessary part of the process. During the eighteenth century castration became so common in France that stringent laws were passed condemning it.

Schumaker and the elder Langenbeck, in the early part of this century, operated by the ancient methods. Gerdy, Wutzer and Wood applied the principles of subcutaneous surgery to the cure of hernia.

The operation for strangulated hernia only dates back to Franco in 1652, Warren and Marcy brought the operation up to the advent of Listerism, Marcy being the first to operate in this country for strangulated hernia under antiseptic methods in 1871.

Steele in London was the first to operate on non-strangulated hernia after the introduction of antiseptic surgery.

The methods in vogue at present are the result of rapid evolution made possible by the genius of such men as Steele, Czerny, Annandale, Marcy, Banks, Championnierre, MacEwen, Barker, Ball, Socin, Bassini, Bull, Weir, Halsted and Kocher.

Coley says the reasons why we fail to get good results are: (1) an incision of insufficient length and too low down; (2) failure to dissect back the aponeurosis of the external oblique well over to the edge of the rectus muscle; (3) careless or unskilful dissection of the sac from the cord and the surrounding tissues, thus prolonging the operation and bruising the tissues, thereby lessening the chances of primary union; (4) too great tension upon the buried sutures or the use of non-absorbable suture material.

The Halsted and Bassini methods are contrasted and he is decidedly in favor of the latter.

The excision of the veins in Halsted's operation is not free from risk, as it may be followed by atrophy of the testis; the transplanting of the cord, an essential part of this operation, is unnecessary.

The division of the entire floor of the canal is another part of Halsted's method that he does not like.

Bassini's personal results have been most brilliant, and his technic is simple and is destined to supplant all other methods for the radical cure of hernia.

Bassini first reported 251 cases. with only one death and seven relapses after four and a half years. Coley's reports since 1891 show that he has operated on 639 cases with one death, due to double pneumonia without wound complication.

Ninety-six per cent. of the patients operated on by Bassini's method healed by primary union. He used chronicized kangaroo tendon. Bassini himself has discarded silk, using instead chromicized catgut.

Coley further introduces a suture just above the cord, passing it through the same structures as those below the cord to prevent any further separation of the tissues

above the new internal ring and to keep the cord restricted to narrow limits.

The best suture is chromicised catgut or kangaroo tendon, the cost of the tendon and the difficulty in procuring the proper size without splitting make catgut the most practical.

Non-absorbable sutures should not be used.

In children he advises operation in the following conditions: If child is over four years of age and truss has been given a fair trial without improvement; in cases complicated by fluid in the hernial sac (reducible hydrocele); in all cases of femoral hernia, as they offer little or no hope of cure by mechanical means.

Umbilical hernia in infants and children should never be operated on, except in few cases, as they can be cured by other means.

Very large and long irreducible hernia in patients beyond middle life should not be operated on; the same is true of large irreducible umbilical hernia in stout women. Operation should seldom be advised in patients over sixty years of age.

Bassini's operation is best for inguinal hernia in the female, and also for the radical cure of femoral hernia.

The majority of relapses occur within the first few months after the operation, 64½ per cent. in the first six months, 80 per cent. during the first year, 8.89 per cent. after one year.

"The thousand-year old problem of surgery" has been solved, and among those who have made possible its solution must be mentioned Morton and Lister.

Neuroses Following Removal of the Ovaries.

Views on this subject have been very conflicting and extreme, says W. E. B. Davis in Gaillard's Medical Journal, some claiming that the removal of the ovaries changed the entire nature of woman, while others maintain that the operation is attended by no bad after effect whatever.

He thinks the concensus of opinion is that the operation is attended by very much the same symptoms produced by the menopause, except that the change may be more strong and of less duration.

In a majority of cases the distressing symptoms are not due to the loss of the ovaries, but to defective technique which left behind suppurating sinus, silk ligatures, adhesions, etc.

The class of operations that has brought pelvic surgery somewhat into disrepute, is when the nervous trouble overshadows the local disease, as oftentimes the patient continues to suffer from mental and nervous disease, the disturbances of the climacteric being added.

Cases requiring operation frequently show great exhaustion from prolonged suffering and the phenomena following the operation is due to this general condition and not to the loss of the organs.

However, the mental state induced by the abrogation of the child-bearing function is greater than has been claimed by some. For the first year after the operation there may be little concern, but later they may become restless, discontented and despondent. Some may become morbid in their desire to have children. Kelly has well said that "ovulation and pregnancy under suitable conditions, are—to a degree utterly unappreciable to the male mind—essential elements of woman's happiness.

Young unmarried women who are kept in ignorance of the true nature of the operation do not develop this despondency.

For four years Dr. Davis has made it a rule to preserve an ovary or part of one whenever possible and he is pleased with the growing sentiment in favor of the conservation of these important organs.

Static Electricity.

There are several methods of applying static electricity, says Shoop in the Journal of Electro-Therapeutics.

The ordinary static current is given on the insulated platform and the static induced current may be given in an ordinary chair or table on the floor.

With the ordinary current we seat the patient on the platform and connect him with the positive side of the machine, he is then charged with positive electricity which may be allowed to slowly draw off in the air producing a mildly sedative effect, or we may approach the patient with the brass-point, the head-piece, the wooden-ball or the wooden point withdrawing the current as a strong breeze; this more decidedly sedative than when allowed to draw off by the atmosphere.

The electrodes mentioned may be used still nearer the patient when sparks will be drawn, these may be intensified by connecting the outer coatings of the Leyden jars; the effect of this current is stimulating to the visceral and spinal nerve centres, some counter-irritant effect, and stimulates the circulation of the blood.

A ball or roller electrode may be rubbed over the surface of the body with a thin layer of clothing between the electrode and the skin, the succession of fine sparks becomes similar to a current in effect exciting

muscular contraction, increasing circulation of the blood.

The static-induced current is used without insulation of the patient, the discharging-rods are slided within a fraction of an inch of each other, so that sparks pass between in rapid succession, the patient is connected by wet sponges and insulated cords to the outer coating of the Leyden jars; this produces a current similar to the faradic current, but is far superior in producing massage of the muscles and for stimulating their nutrition. In the latter form it is necessary to expose the skin, but in all the other applications there is no necessity for disrobing.

Static electricity may be used with marked benefit in the following conditions, muscular rheumatism, intercostal neuralgia, wryneck, muscular paralysis and atrophy, facial neuralgia, gastralgia, enteralgia, ovarian neuralgia, atonic dyspepsia, constipation from atony, headaches, any kind of pain, insomnia, depressed heart from tobacco or gymnasium, cold extremities, sprained ankle or other joint, nervous debility, melancholia and neurasthenia.

He admits that it will not cure a genuine case of *tic-douloureux*, nor where a growth or tumor presses on a nerve.

Gastralgia due to cancer, the pain of passing gall-stone or renal calculus, or ovaritis due to fibrous contracted ovary are not amenable to treatment with this current.

Sprains may be greatly helped, and the duration of treatment greatly lessened, by this form of electricity. It is also of great assistance in stopping the tobacco habit in connection with cannabis indica.

Necrosis in Bone and Its Treatment.

The usual way of packing with iodoform gauze after scraping is supplanted by the organized moist blood clot by Parker in the Cleveland Medical Gazette.

The cavity in the bone and all the sinuses leading from it are to be rendered completely aseptic and this space to be filled by a blood clot, which, protected by suitable dressing, becomes organized into fibrous and osseous tissue.

In some cases this method is not applicable, as the sinuses are so numerous and so situated that it is impossible to render them aseptic.

The suitable cases for the blood-clot treatment are those occurring in the subcutaneous bones, as the tibia or ulna, where the sinuses are short, and they may be included in the line of incision.

After removal of the sequestrum, the most painstaking scraping should be made in the cavity and throughout the sinuses until the last fragment of lining membrane has been removed. Peroxide of hydrogen in full strength is used until all foaming ceases, or a bichloride 1-1000 or 1-2000 may be freely used all over the surfaces. One per cent. formalin may be used as an antiseptic as it is non-irritating and has no unpleasant odor and is especially valuable in bone diseases.

Sterilized water is used last to remove previous solution and the soft parts united with silkworm gut, over the united wound is placed a sterilized strip of Lister protective, sterilized gauze, absorbent cotton, rubber tissue and an oakum pad. He thinks it better to immobilize the part using a splint or some immovable dressing as starch, glass or plaster and to include the joints on both sides of the affected part.

This dressing is to remain in place for three weeks unless a rise of temperature and other constitutional disturbance show that the case is not progressing favorably.

His first case was of necrosis of the ulna, a delicate sequestrum 3¾ inches long was removed and the wound treated as described, the dressings were removed after three weeks and the wound found solidly healed.

The method is especially recommended in children, as it saves them the pain of repeated dressings.

The author suggests a wider application of the method in operating for tuberculosis of bone. Tubercular foci in bone while abounding in the specific bacilli, may be entirely free from the bacteria of suppuration.

And in such cases we may expect good results from this method of healing by the organized blood-clot.

Epidemic Cerebrospinal Meningitis.

Three cases of cerebrospinal meningitis are reported by Howard in the Cleveland Journal of Medicine, in which the diplococcus intracellularis was found in the exudate. These diplococci are rather smaller than the ordinary micrococci, they are not quite round, they lack the lancet shape of the d. lanceolatus and resemble the gonococci in shape.

These organisms were never found free, but always within the leucocyte.

The organism grows with some difficulty and a number of cultures should be made from the suspected material.

The first case was a negro, age 23, complained of headache and general malaise, on admission his temperature was 102; the next morning normal. Examination of the blood showed 27 thousand leucocytes per

cm.; the day following they were 19 thousand. The chief symptoms were occipital headache and cervical opisthotonos and at times delirium.

Death occurred on the sixth day, the diplococcus intracellularis was found in the cerebrospinal exudate.

The second case was a girl of 20, ill a month with a chronic attack, a few days after admission 50 c.c. of slightly clouded serum was taken by lumbar puncture which on examination gave pure culture of the d. intracellularis.

The third case was a male, age 28, complained of pain in the back and neck, developed cervical opisthotonos and coma, dying on the sixth day. Necropsy showed well-marked purulent basal meningitis, all the cranial nerves were surrounded by an exudate. There were scattered areas of broncho-pneumonia in the lower lobes of the lungs. A few small diplococci were found in the exudate and pus. From the lungs capsulated diplococci were found together with the staphylococcus pyogenes aureus.

Hydrotherapy.

A classification of hydriatic effects used in the treatment of disease is continued by Kellog, in Modern Medicine for August. A single short application of cold water is always restorative and invigorating in its effect, the application of cold water to the head and face alone has a wonderful effect.

Care must be exercised in using the general cold bath in cases of extreme exhaustion or when a sensation of chillness exists. A general cold application should never be made when the surface is cold, blue or covered with cold perspiration or when the body is in a state of extreme fatigue.

The tonic effect of cold water is its most constant and regular effect. The medicinal tonics so-called, he thinks, are toxic in character and their tonic effect is due to the fact that the system is aroused to resist their influence.

A medicinal stimulant is a mortgage placed upon the vital capital of the body which must be paid sooner or later. Strychnine may provoke the expenditure of nervous energy, but it does not replenish and so a medicial tonic or stimulant aggravates the very condition it is intended to cure.

The only way that the energy granules of a nerve cell can be augmented is by the assimilation of food from the blood. Cold water surpasses all other agents in its power to promote the normal energy-storing processes.

He considers the tonic effect of cold water to be due to its effect upon the sympathetic nerve centers controlling the blood vessels, glands, heart, and in fact all the vital functions of the body.

He calls the skin a harp with a million strings, and cold water plays upon it in the role of a physiological tonic.

The tonic effect of the cold bath is enhanced by repetition, but it must be watched as it is a two-edged tool and is capable of acting in opposite ways.

All baths below 90 F. are tonic when of short duration, depending upon the condition of the patient. If the time is prolonged it becomes sedative indicated by a lowering of the rectal temperature. The douche and friction of course add to the effect of the bath.

Tonic measures are especially indicated in anemia, nervous exhaustion, hysteria, dyspepsia, chronic inebriety,insomnia, obesity, exophthalmic goiter, convalesence from fever and in most other chronic morbid conditions. In extremely feeble persons the gentlest measures are advised as cold wet-hand rub, cold friction, salt glow, hot and cold applications to the spine and similar means, confining the applications to small areas.

Fatigue may come on in feeble patients after tonic applications and great care is necessary in beginning treatment.

Cold to the chest must be judiciously applied, especially in those subject to asthmatic attacks, or cardiac weakness.

The cold douche to the chest should be avoided. In extremely nervous or neurasthenic cases it is best to use a hot bath for a short time followed by cold application for 3 to 10 seconds.

In anemia the Scotch douche secures the best result.

At times let the patient, while taking the cold jet or spray douche, stand in a foot bath so warm that he can hardly stand still in it.

The tonic bath is useful in cerebral congestion where the condition is chronic.

In hypochondria and rheumatism the tonic bath may be given, but in rheumatics it should be given only after a sweating bath of some sort.

Diphtheria and Antitoxin.

Stivers, in the Southern California Practitioner for September, reports two cases of diphtheria treated by antitoxin hypodermically and four cases immunized per orem.

Both cases were proven bacteriologically to be genuine diphtheria.

The first case was a girl, age 12, who had

1000 units on the second or third day of the disease and four days later the membrane had entirely exfoliated, the throat looked healthy, the glands had subsided and the patient was convalescent.

In addition to the antitoxin he gave 1-6 gr. calomel every half hour for twenty-four doses, hydrogen paroxide diluted one-third as a gargle, nutritious easily digested food, absolute rest in bed.

The second case was a boy, age 7, who was given 600 units and as there were four other children in the house, isolation being out of the question, they were given immunizing doses by the mouth. One, age 11, 100 units; age 6, 100; age 4, 100; age 2, 50, and the mother was also given 150. There were no reactions and none of the exposed children contracted the disease. The case made a rapid recovery.

For immunizing he thinks the administration by the mouth as effective as the hypodermatic method where the parents or patients object too strenuously.

However, further observations are necessary to establish this fact.

Cerebrospinal Meningitis with Ulcerative Endocarditis and Abscess of Myocardium.

In the Medical Record for September 2, Boston reports a very interesting case of meningitis which, on autopsy, showed ulcerative endocarditis with an abscess in the wall of the right auricle.

The patient was white, male, age 56, paper-maker, seen March 8th, suffering from the effects of a three weeks' debauch, nausea, anorexia, etc.

Heart sounds were weak, systolic murmur at the aortic cartilage, bronchitis, sputum contained tubercle bacilli. In a few days he was improved sufficiently to go out but had no home, so he was kept in the hospital. March 14th, he was talkative in his sleep, consolidation at right apex, March 19th, marked delirium followed by semicomatose state, extremities spastic, reflexes increased. Eyes were tightly closed, paralysis of the bladder and rectal sphincter, temperature 101–102.

March 20th, there was marked rigidity of the muscles. tremor of left arm, hand and foot. March 21st, there was general relaxation, except in the neck, the eyes turned to the right, temperature 103–104, death at 3 A. M.

Autopsy showed slight abdominal distention, adhesive pleurisy at the apices, more pronounced on the right side, pericardium contained 10 c.c. of strawcolored fluid, a milk spot over the right ventricle, orifices normal, atheroma of the arch.

The lungs showed tuberculosis at all stages, tuberculous ulcers in the intestines, a mild grade of acute nephritis.

Pia mater and anachnoid infiltrated with extensive exudate all over, the spinal cord showed the same condition of its covering, a large amount of fluid from lumbar puncture.

Cultures from the abscess in the heart and from the meninges showed only the diplococcus intracellularis.

The Malignity of Malaria in Cuba.

We are not in the habit of looking with much alarm upon a case of chills and fever in this section of the country, but in Cuba, Espada says, in the Sanitarian, that paludism or marsh fever is more destructive of life than any other prevailing disease. He regards malaria as far more malignant than yellow fever, typhoid fever or dysentery. Of the victims of the Cuban war, whether Spaniards or Cubans, in fully half a million the cause of death was malarial fever. The statistics, he says, are not exact and misrepresent the real sanitary condition of the island. A patient with malaria is seized with grippe, pulmonary catarrh or enteritis and dies; the report will say that the cause of death was grippe, pulmonary catarrh, or enteritis when in reality none of these would have attacked the patient were it not for the persistent malaria which was the real cause of death.

So in deaths from abscess or sclerosis of the liver, nephritis and anemia the real cause is lost sight of and the blame attached where it does not belong. The association of malaria and tuberculosis is now generally recognized.

A powerful influence must be assigned to the action of malaria, whether it is manifested as a new attack or exists as a latent element on the appearance of another disease or again that is fully developed and reacts on some other disease. In all such complex cases paludism is a dangerous host, at times obscuring the diagnosis to the prejudice of the patient, influences the prognosis and limits or completely paralizes all remedial agents. The children of parents suffering from chronic malaria do not possess the quantity and quality of vital energy necessary for their full development. Facts pointed out so plainly by the profession should be acted upon by the public authorities.

Curative medicine has only a relative action. The majority of cases get comparatively well, but they still live in an infected

district and immunity does not exist in any case, rather one attack prepares the way for another until the case becomes chronic, unless the patient changes his locality. Too much must not be expected from medicine, hygiene and allied sciences must point out the remedy. Sanitation, proper drainage, pure water must save the individual; with medicine alone the disease will menace health and will finally triumph.

Intramuscular Injections of Mercury in Syphilis.

Stinson, in the New York Medical Journal for September 2nd, reports a case of brain syphilis treated very successfully by intramuscular injections of the salicylate of mercury. Two grains of the salicylate in half a drachm of sterile almond oil was injected into the muscles of the buttock twice a week for nine injections. The injections were discontinued as the teeth became loose and the submaxillary gland enlarged. For the last four injections a grain of calomel was used.

He mentions the following points in tertiary syphilis a thorough course of treatment should be given each year for three years or longer.

Forty per cent. of patients can take 2 grains of the salicylate twice a week for nine or ten injections, another forty per cent. can take one and a third grains three times a week, the other 20 % are hyperasthetic individuals who will not take intramuscular injections, as they cause pain and lameness.

Between the series of injections ten minims of a saturated solution of iodide of potash is given three times daily.

Mercury he considers the curative drug for syphilis, the iodide is proplylactic against endarteritis.

The almond oil is sterilized by boiling and is kept in a sealed bottle.

The salicylate should be pure and in a sealed half ounce bottle from which the dose is carefully weighed on clean paper.

The powder and oil are placed in an aseptic mortar and well triturated. The injection should be made with every precaution against infection by the syringe or the skin of the patient.

The needle should be two inches long and should be plunged its full length into the buttock. Inject the oil slowly and withdraw the needle slowly so as not to get any of the oil into the fatty tissue.

Absorption begins very soon and continues for four to seven days in the system.

By the use of injections none of the digestive functions are interferred with and the resultant improvment is certain and rapid.

Morphine or cocaine should not be added to an injection unless there is dyspnea when cocaine may be used with decided benefit.

Before beginning intramuscular injections it is important to ascertain that the teeth are in excellent condition and that the kidneys are not diseased and in all cases the urine should be examined once and awhile during the course of treatment.

Diagnostic Curettage.

Eastman, in the American Journal of Obstetrics for September, discusses in a very scientific way curettement as a means of diagnosis.

At the outset, he says it has not been raised to the plane of scientific acceptation.

Even in cases of suspected malignant uterine disease, digital exploration is the best of pertinent diagnostic measures.

He divides the foes of curettement in diagnosis into two groups: those gynecologic routinists, who have an overpowerful sense of delicacy or who are indifferent to the less salient points in the diagnosis and those who think the speculum and finger all that is necessary.

Dilitation of the cervix sufficient to admit the exploring finger is heroic compared with curettement, which may be done without anesthesia. Pick's modification of Cullen's method will enable one to make a diagnosis at a simple sitting.

The method is as follows: The piece of tissue is brought directly from the curette or knife on to the table of the Jungs-Hobel freezing microtome, each section is wiped off the knife with the finger and floated in 4% solution of formalin for four minutes, rinsed in water, then in 4 % alum carmine, rinsed again in water, then successively in 80 % acohol, absolute alcohol and xylol, remaining four minutes in each. The sections are then ready to mount in Canada balsam. Specimens prepared in this way are very satisfactory in the diagnosis of neoplasms, inflammation and erosion.

The one stain used will give several shades of color and they may be kept for years. According to Veit a piece of tissue may be benign, doubtful or malignant.

In benign diseases we find the normal element of the endo-metrium, intercellular substance, connective tissue cells round and fusiform in shape, and glands with a single layer of epithelium.

In malignant disease we have absence of connective tissue or epithelial infiltration, metamorphosis of the cylindrical epithelium of the glands, the presence of giant cells

or other complex elements, cancer pearls, the concentrically arranged masses of flat epithelium. Doubtful means the procuring of new material for examination and further clinical observation.

The naked-eye appearance is of value, the color, consistence, odor, quantity and the character of the surface should all be recorded.

The normal uterine mucosa must be well studied before we can come down very heavy on the pathology.

The author states that diagnostic curettage may be useful in the following conditions: Interstitial, decidual, tubercular, gonorrhœal, or glandular endometritis; remnants of abortion; glandular polypi; benign, and malignant adenoma; carcinoma, sarcoma, malignant deciduoma and echinococcus.

Some endometrial pathologic conditions are left out as they contraindicate curettement or they present no distinguishing peculiarities.

Currettement is essential for the diagnosis of tuberculosis of the endometrium.

The "figura typica" of carcinoma of the corporeal or cervical mucosa and the cancer pearls of flat-celled uterine carcinoma should not escape detection, though our experience be small and they are discoverable in the early stage of the disease.

The diagnosis of sarcoma is confessedly difficult, as the cells are so much like those of granulation tissue.

Uncertainties will remain after the use of the microscope perhaps, but the gyneeologist should be able to use one skilfully, it is to be used only in connection with the clinical signs, symptoms and conditions.

The Bacillus Icteroides.

The discussion in regard to the germ of yellow fever goes on and will, perhaps, continue until we have a heavy frost.

Novy, in the Medical News for September 23, replies to Sanarelli in reference to his attitude toward Sanarelli's bacillus.

Dr. Novy was somewhat skeptical, along with some other well known bacteriologists, as to the specificity of the bacillus icteroides, this position Dr. Sanarelli proceeded to write of with characteristic vigor.

Dr. Novy claims that even a scientific publication is open to doubt and criticism as well as to unquestioning acceptance, and this is especially true when such publication does not carry within itself a complete and perfect chain of evidence.

He is willing to admit all that Sanarelli claims whenever the proof is satisfactory.

The resistance of the bacillus to cold seemed a break in Sanarelli's chain of evidence and it was not at all satisfactorily explained.

In cases where the germ of yellow fever is said to have resisted extreme cold, they were evidently preserved in the clothing and bedding of the crew, and when the germs survive the winter it is only when the weather is very mild.

The gonococcus is mentioned as a reply to Dr. Sanarelli's question for a single specific germ that could not endure cold, as according to Christmas it is killed in a few hours if the temperature goes below 15 degrees.

In regard to his ignorance of current literature, he cannot read results until they are published, and the authorities mentioned did not publish their results prior to the appearance of his paper.

About the agglutination experiments he thinks Dr. Sanarelli is criticizing his own work, as Dr. Novy describes the method employed, which is that of Widal.

In the production of toxin and antitoxin they had both failed to obtain an antitoxin serum.

He believes that the bacillus icteroides is entirely different from the bacillus coli commune, though the effect of both is very much alike in experiments on animals.

The evidence in favor of the icteroides has been strengthened by recent investigators, and he will be pleased if the final report of Wasdin and Geddings furnish incontrovertible evidence as to its specificity.

Dysacousis.

Dysacousis is at once a name and an explanation, given by Lake, in Treatment for August 24, of that variety of deaf-mute who recovers his hearing after the removal of adenoid vegetations from the nasopharynx.

The name is not applied to those who gradually acquire the faculty of hearing by the method of Urbantschitsch.

As to how this improvement takes place the author concludes that nasal respiration means increased oxygenation of the blood, improved health and thoracic development, and with better physical health comes better cerebral health and improved cerebration plays a part in the restoration of the lost function, There is also a direct effect by freeing the orifice of the Eustachian tube so that air can enter to the middle ear, its mucous membrane takes on a normal state, the jelly that filled the tympanic cavity is absorbed, the secretion becomes normal and the nerves healthy.

That the Eustachian obstruction is a very

real factor, he says, is shown by the deafness which follows catarrhal inflammation and the marvellous relief obtained by inflation.

The curable class is confessedly small, but he says that with even so small a proportion of hopeful cases, we are more than justified in proposing the operation if its uncertain nature can be put before the parents in a way suited to their comprehension. He relates a successful case in which there was not the least trace of any hearing power, nor did the child utter any sound.

Within three months after removing the adenoids the child was speaking and in six months could speak well. He admits that unfortunately such cases are the exception and not the rule.

Abortion.

Abortion is usually applied to the expulsion of the uterine contents prior to the fourth month of pregnancy, says McHugh in the Colorado Medical Journal for September.

He thinks abortions are much more frequent than statistics show. Many abortions occur that are never heard of; frequently women pass the usual time of the sickness and in the course of five to nine days begin to menstruate, such delays being very frequently due to conception. Many women abort time after time without knowing it. Abortions are much more dangerous than full term labor. Abortion is more likely to occur about the time of the regular monthly period.

The causes may be disease of the ovum or placenta, great nervous sensibility, strong emotions, toxic agents and toxins in the blood, constitutional disease of one or both parents.

Men too young or too old are liable to beget a fetus that is not fit for development. They are more frequent in hot climates and mountainous sections, though the Colorado women, living in the Rocky mountains, are not especially afflicted.

Diseases of the uterus and its appendages, mechanical violence and obesity may cause abortion.

Hemorrhage and pain are the most prominent symptoms. The expulsion of the fetus is the first stage to be followed sooner or later by the placenta, which is usually the last, but in some cases the decidua may follow later making three stages.

The chief dangers are from excessive hemorrhage and infection, the latter being the most fruitful cause of death.

He says that all cases of retained putrid placenta do not cause septicemia, the alteration in the placenta being purely chemical in nature and consist in the production of alkaloids having a very penetrating odor.

With the presence of septic germs 24 to 48 hours may suffice to destroy life or the progress may be slow.

The streptococcus pyogenes is usually carried into the wound by the hands of the patient, an attendant, or the physician, or by a dirty syringe.

Puerperal metritis results from the introduction, the tubes being also involved the left more frequently than the right. The infection may pass to the peritoneum and ovaries.

Displacement, sterility, uterine hemorrhage and various neuroses may follow abortion.

If it is not inevitable treat by rest in bed, avoid stimulants and hot applications, cooling drinks are beneficial, opium of most value.

If inevitable empty the uterus by manual extraction, having the hands and vagina thoroughly clean; the blunt spoon curette and the fenestrated placental forceps if the ovum is ruptured. For much hemorrhage, with a contracted cervix, tampon, though if possible avoid it.

No broken membranes should be allowed to remain, but use the dull spoon curette over the entire surface if they are retained.

After abortions he always irrigates the uterus with hot sterile water or salt solution. If septic he swabs out with 95 per cent. carbolic acid, and, if the nurse is competent, orders hot vaginal douche once or twice daily, with rest in bed for a week.

Toxicity of Urine in Pregnancy.

Numerous attempts have been made to isolate the poison, if there was any, from the urine of pregnant women and so to clear up the whole matter of eclampsia, but so far they have failed.

Stewart, in the American Journal of Obstetrics for September, reports a series of experiments which indicate that investigators must start back at the beginning. After attempting to isolate a poison and failing, he brought to light the following fact, that the toxicity of urine depended on the time it was injected after passing.

Unboiled urine that had stood for 24 hours killed 100 per cent., while fresh urine killed only 20 per cent.

The author reasons that if urine will spoil so quickly and that if its toxicity is due to bacteria or retrograde changes of any kind, then the serum of the blood must suffer alteration in the time that intervenes between its withdrawal and the injection. Blood

we know must be kept 24 hours before serum can be obtained and it is reasonable to suppose that during this time a number of changes may take place in its composition. This is important as nearly all investigators claim a definite relationship between urine and serum as to toxicity, but experiments should be made with antiseptic serum, if such be possible, before dogmatic assertions can be made.

Bone Necrosis Following Typhoid Fever.

Four cases of bone necrosis following typhoid fever are reported by Finney in the Colorado Medical Journal for September.

Three of the cases involved the sixth rib on the left side at almost exactly the same spot, none of the four recovered without an operation.

The cases all occurred in from two to six months after convalescence had been fully established. In three cases the diseased bone was removed, the wound healing promptly.

In one case, on account of the dread of the patient, the abscess which had formed was simply washed out with an antiseptic solution, but the suppuration did not abate. A second operation was only partially successful, and after allowing plenty of time for healing to no purpose, a third operation was performed, result not stated. In this case the necrosis affected the sixth rib at its junction with the costal cartilage. There was no history of injury as a cause in any of the cases reported.

Aconitine in Acute Inflammatory Disease.

Shaller, in the Alkaloidal Clinic, reports a case of acute inflammation treated with aconitine.

The patient was stout, heavy man, after exposure to rain had chill, twelve hours later Dr. Shaller saw him with pulse 126, temperature 102.8, respiration 36, slight dullness in lower part of right lung posteriorly, some crepitant rales, bloody sputum, severe pain over lung, worse on deep breathing or coughing, face flushed, restless and delirious. Treatment was dosimetric trinity No. 1, one granule every half hour, no stimulants. Twelve hours later his pulse was 100, temperature 101, respiration 30, treatment continued.

Twenty-four hours after treatment was first begun or thirty-six hours after the chill, his pulse was 80, temperature 98.4, respiration 18. Treatment was then changed to quinine arseniate 1-6 gr., two every three hours.

The patient restoration to health was rapid and without interruption.

The best results from aconitine are ob tained during the first twenty-four or thirty-six hours of an inflammatory disease. After pneumonia has been present three or four days, aconitine may not even reduce the fever, though it may reduce the pulse rate and improve the secretions.

Typhoid and malarial fever can not be aborted by aconitine yet it may reduce the temperature some.

It has particular indications and whenever used early in acute inflammatory disease, particularly of the respiratory tract, it is impossible to be disappointed.

The author concludes that amorphous aconitine is safe, reliable and efficacious.

The Galvano-Cautery in the Treatment of Hay Fever.

The galvano-cautery is considered a very potent means for the relief and cure of true hyperesthetic rhinitis where it is of purely local origin, by King, in the Journal of Electro-Therapeutics.

If the hyperesthesia is due to a constitutional cause as uric acid retention this form of treatment will do no good, but rather harm, but there is a so-called pollen catarrh, which is practically local in its nature and due to a circumscribed or general hyperesthesia of the nasal mucous membrane and it is this variety that can be successfully treated by the cautery.

The diagnosis may be made by a careful urinary analysis repeated several times and if after several tests there is found no diminution in the urea and no other symptoms of the diathesis we may say that there is no constitutional cause.

On examination, the circumscribed spot of hyperesthetic membrane are found and these are carefully cauterized about a month before the usual time for the attack. One or two of the sensitive spots are taken at the time, a local anesthetic is used first, cocaine if there is considerable hypertrophy or tumefaction otherwise eucaine, then the electrode, with the platinum at a bright red is carefully applied so as to destroy no normal membrane, It is better to underdo the work than to overdo.

The wound is dressed by a non-poisonous spray or wash such as Dobell's, or permanganate of potash; this is followed by bland oily mixtures, after a few days the burn has healed and the patient is ready for treatment to another spot or two, this is continued until no more spots of sensitiveness are found.

The author reports that cases so treated suffer none at all or the attacks begin very much later and do not last near so long.

In some treatment may be necessary the second and third years, but in all great relief was experienced the first year.

He reports four of his cases in which the treatment was of marked benefit in one and curative in three.

Vaginal Hysterectomy.

The indications for and advantages of vaginal hysterectomy are set forth by Ellis in Gaillard's Medical Journal.

The presence of so much disagreement makes us prone to rest content with the particular procedure that we are most familiar with, though there may be some better method for the patient.

The vagina being the most dependent point of, and the natural outlet for, accumulations in the pelvic and peritoneal cavities, the vaginal operation secures open drainage for all inflammatory and suppurative processes.

The presence of a disfiguring abdominal cicatrix and its tendency to hernia are objections to the abdominal operations.

The fact that women will submit to surgical interference sooner if we can assure them that there will be no external scar and early surgery means successful surgery in so many cases. The amount of disturbance and the risk of infection are much less by the vaginal route.

Shock is largely avoided, post-operative paresis and intestinal obstruction immunized and convalesence rendered easier and shorter by the vaginal method.

He also claims for this method equal if not better facilities for diagnostic purposes than the abdominal.

With an incision in the posterior cul-de-sac and the table tilted to an angle of 40 degrees, the pelvic floor relaxes, the intestines gravitate out of the way, the uterus can be lifted up behind the symphisis and an unobstructed view of the pelvic contents may be had. One great advantage is that it allows of the use of clamps and thereby shortens the operation. Doyen says in surgery *time is life*, and with one assistant, he does an uncomplicated vaginal hysterectomy in from eight to ten minutes.

The comparative mortality is for abdominal section for hysterectomies and pus case 18.5%, for the vaginal operation 2 to 10%.

He recommends the vaginal operation in all operable malignant diseases of the os, cervix, or body of the uterus, in suppurative bilateral diseases or incurable inflammations of the appendages, in complete prolapse or incurable chronic inversions, in operable (septic) puerperal metritis and in myoma or fibro-myoma (with morcellement when necessary) unless there be excessive size or extensive adhesions.

However submucuous fibroids of large size may be removed with the "tubes tranchant" of Doyen and morcellement without removing the uterus.

In excessively corpulent patients with abdominal walls thickened by several inches of ugly, yellow fat, the vaginal operation is easier and safer.

The author concludes that we should not habitually practice either vaginal or abdominal hysterectomy, but select the method that is applicable to each case, preferring the vaginal when in doubt.

The Diagnosis of Cerebro-Spinal Meningitis.

Aldrich, in the Cleveland Medical Gazette, gives the following points in the clinical diagnosis of epidemic cerebro-spinal meningitis:

Coryza, in which the scleral and sub-conjunctival vessels are congested out of proportions to the vessels of the palpebral conjunctiva, severe headache.

The patient is usually found lying upon the side, with head drawn back, the body curved forward, the knees drawn up and the arms tightly folded across the chest. If aroused even in a dark room there is seen that expression of the face that we find in a well man suddenly aroused from sleep by a strong light in his face, the lids are tightly drawn, disclosing only a gleam of the congested eye, the brows are contracted, the upper lip raised, showing the teeth often covered with sordes, the nostrils distended and over all an expression of querulous irritability. Early in the disease the pupils are contracted, but later dilatation takes place.

The patient if aroused by questions shows apathy, mental obscuration and drowziness.

Delirium is wandering, though not usually an early symptom. The first complaint is usually of severe pains in the head, vomiting may be distressing in some, absent in others.

In respiration the diaphragm and abdominal muscles do not act in concert, the rhythm may be disturbed early in the trouble, but Cheyne-Stokes' respiration is always late in the disease.

Rigidity and soreness of the neck, rigidity of the arms and legs or Kernig's sign of value as early symptoms of meningitis.

Hyperesthesia of the skin is quite constant and an early symptom, but hyperalgesia is more constantly found, great sensitiveness to cold, the contact of cold with the skin producing actual pain.

The eruption may be herpetic, petechial, hemorrhagic or bullous. Ulceration of the cornea may occur with herpetic eruptions about the face, likely the result of an inflammation of the cranial nerves.

The reflexes are usually exaggerated early and inhibited later, the ankle clonus and the jaw jerk are often present; the reflexes, however, vary so much that at best they furnish only corroborative evidence.

Floating Liver.

Floating liver is one that has fallen downward, and can usually be restored to its normal position, partially or completely, by certain manipulations, according to Einhorn, in the Medical Record. The occurence was first noted in the dissecting room by Sauvage, later it was demonstrated in a living woman by Cantani in 1866.

Among the causes, he mentions the corset, frequent pregnancies, elongation of the ligaments, carrying heavy burdens, falls. Landau's theory is perhaps the most reasonable one mentioned. First, Locations of the ligamentous structures of the liver, originating in acute trauma or more frequently in repeated ones. Second, Enlargement of the capacity of the abdominal cavity, followed by the dislocation of the abdominal and pelvic organs and indirectly of the liver, for normally it is carried upon the intestines like a cushion, if they slip down, a descent of the liver will readily take place.

Cases are mentioned by Landau in which luxation of the liver followed lifting a piano, and frequent sneezing. Lifting heavy weights is a frequent cause.

Dr. Einhorn observed a case in a singer which he thought due to the laborious work of the diaphragm incident to the particular vocation. Enlargement of the abdominal capacity may come on as the result of progressive emaciation, childbirth or the removal of tumors.

The condition is stated to be comparatively frequent. 3.7% of all persons suffering from digestive disorders had floating liver.

It is nearly three times more frequent in the female than in the male. Among 21 women with floating liver, 10 also had floating kidney which was bilateral in three cases.

He dissents from Landau's view that these two organs should commonly be found dislocated together, but he considers the dislocation of one organ by filling in so much space as rather tending to prevent displacement of the other.

He divides them into five groups: cases unaccompanied by symptoms, the floating liver giving rise to no disturbance; dyspeptic cases with indefinite digestive disturbances with a feeling of a weakness and certain other nervous symptoms; cases of hepatalgia with almost constant pain on the right side radiating towards the back and shoulder blades, frequently subsiding in the recumbent posture and in many instances sensations of a drawing or tearing character are felt; cases of hepatic colic similar to gall stone colic, without icterus except in rare instances; asthmatic cases with a feeling of fullness and constriction in the upper abdominal region and slight dyspnea.

Cases are reported illustrating the four groups attended with symptoms.

In making a diagnosis palpation is most significant; as in the case of floating kidney it is the most valuable method of examination. Palpation and percussion should be carried out in the recumbent and the erect position. There may be moderate or marked descent or vertical or oblique displacement.

To make the diagnosis positive we must exclude disease of the intrathoracic organs that cause filling up of the thoracic cavity, enlargement of the liver, hepatic tumors, renal tumor or hydronephrosis. To avoid mistakes the examination must be thorough.

The treatment recommended is, well-fitting abdominal bandage, general massage, hydrotherapy, forced feeding for the weakly reduction of food in heavy eaters who are corpulent, gymnastic exercise in the open air.

He is not in favor of operative treatment in such cases.

He uges strongly the diagnostic importance of floating liver and the successful outcome with appropriate traatment.

Appendicitis as a Medical and Surgical Disease.

The question as to whether appendicitis is a medical or a surgical disease is answered by Crile, in the Cleveland Journal of Medicine, by considering it both a medical and surgical disease from the beginning.

The pathology being that of an infectious inflammation, developing a large number of cases into suppuration and that may so rapidly at any stage pass beyond the influence of internal medicine, it must present from its inception surgical aspects. The surgical phase may be ushered in gradually or develop with abruptness.

In its beginning no attack is so mild as not to be serious.

He considers it better to recognize the

surgical aspect at the outset and to have the surgeon associated at once.

The "when to operate" determines the consequences in the majority of cases and this should be decided by the physician as well as the surgeon, both having seen the case from the beginning.

If we wait and simply call in the surgeon to operate and the case terminates fatally, we may have to answer an anxious "was the operation performed early enough?"

The interests of the attending physician and the surgeon being identical, there should be no misunderstanding, however, the personality of the men will determine this.

Late operations have a high death-rate, no matter how skilful the surgeon.

Even conservative Edinburgh believes in early operation, and in London the tendency is decidedly towards early operations.

The author reviews his experience with ninety-three operations, laying stress upon the necessity of continuous watching from the very onset, as the battle is often won or lost in a very few hours, and so he concludes that it won for the patient, the physician and the surgeon if we regard appendicitis as a medical and a surgical disease from the beginning.

Edema of the Nasal Mucous Membrane.

Gradle, in the Laryngoscope, reports three cases of complete occlusion of the nasal passages from edema of the nasal mucous membrane. In all the three cases it developed subsequent to an acute inflammatory attack, whether simple coryza or an influenza could not be determined.

There were no circumscribed lesions present, to the influence of which the edema could be attributed. There was no suppuration in any of the three, the nasal passages were narrow, but they had not previously complained of nasal obstruction. The mucous surfaces were in complete contact throughout at least the anterior part. In one case the posterior ends of the turbinals were seen to be edematons, in the other two a post-nasal view could not be obtained.

The mucous membrane was pale, grayish pink, distinctly swollen and soggy over the septum as well as over the turbinals and external wall. The swelling was not circumscribed, but diffused, and after subsidence the mucous membrane was found hypertrophied. The history of the cases promised that the edema might be of indefinite duration, as in one case it had lasted the entire winter and well into the summer. The occlusion caused by it did not seem to vary but was quite constant. After recovery, however, there were no relapses. The treatment consisted in dilatation by tampons wet in 5% cocaine solution, insertion of pledgets of nitrate of silver solution and with carbolized glycerine, the use of sprays of menthol-vaseline, but the author thinks the most prompt and lasting effect was due to the mechanical dilitation aided by cocaine.

In one case in addition to the above treatment, the soft hypertropy of the right inferior turbinal was snared off and in another case this was done on both sides.

Correction in Lateral Curvature.

Bradford and Brockett, in the Boston Medical and Surgical Journal for September 21st, takes up the mechanical treatment of lateral curvature where there is limited flexibility of the spine and structural changes of the ligaments and cartilages. In cases where there are no structural changes, or where they are slight, the treatment is largely gymnastics and the stretching of contracted ligaments.

In cases where the spine is stiff with structural changes in ligaments, cartilage and bone, the treatment is palliative.

In the treatment by plaster jacket the suspension used did not sufficiently correct the twist of the spine.

They recommend fixed appliances, applied while the patient is corrected as much as possible, and he must be kept in that position until the plaster hardens sufficiently to maintain the correcting pressure. This correcting pressure should be as great as can be borne without distress.

The spine can be better straightened in the recumbent posture than by vertical suspension in lateral curvature.

In cases suited to this correction the middle line of the trunk can be made straight if the patient is placed upon his back with or without head and foot traction.

The patient lies with his weight supported only upon certain points while pressure is made from above over certain points.

In the back these points are the projection of the shoulder or adjacent part of the thorax below the scapula on one side; on the opposite side above the scapula or at the base of the neck; in the lower portion of the trunk in the lumbar region on the side opposite to the prominent shoulder.

In front the points are the prominent part of the thorax on one side; on the head of the humerus or acromial end of the clavicle; the projecting pelvic anterior-superior spine.

Supporting rods bearing small removable aluminum plates over which felt is laid are placed under the patient's back at the re-

quired points, the head, pelvis and thighs being supported by cushions on a table or by strap stretched across a gas-pipe frame. Downward pressure is made from above while the plaster is hardening, the padded aluminum plates becoming incorporated in the plaster and exert constant pressure.

The plaster should pass over the shoulder close to the neck on the side of the projecting neck, unless this is done the corset will tip when the patient is erect and the points of correcting pressure will be lost.

The treatment should be continued as long as correction can be obtained, after which a removable corset and gymnastics are to be used. Three cases are reported in which this method was used, in two with good effect, in the other the degree of inflexibility was too great, as there was a double curvature with rotation, but even in this case the lumbar curve was obliterated by treatment.

Carbolic Acid in the Treatment of Tetanus

Woods, in the N. Y. Medical Journal for September 9th, recommends the use of carbolic acid in tetanus, and reports a case so treated with recovery.

The patient was a boy, age 12, who, ten days before, had run a nail into the sole of his foot.

When first seen had stiffness of the neck and spine, sore throat, swallowing difficult. The rigidity extended along the neck, back, chest, abdomen and extremities. On attempting to drink the trismus was increased, later the jaws were tightly locked, reflex excitability increased, the slightest noise, the least touch was sufficient to bring on a paroxysm. Profuse perspiration, agonized expression, respiration seriously involved. Swallowing was impossible until the third day, frothy mucus ran from the mouth. Dyspnea and opisthotonus present throughout, maximum temperature 102, highest pulse rate 82. Bowels constipated, urine scanty, high colored, phosphates in excess, sleepless, mind clear throughout.

The place of injury was freely opened, and a dark tarry substance was scraped out.

The foot was then soaked in a weak solution of carbolic acid. Ten minims of a ten per cent. solution of carbolic acid was used hypodermically, fifteen minutes later 20 minims, and fifteen minutes later 30 minims. This latter dose was continued every half hour throughout the day with half grain cannabis indica.

The carbolic acid solution was given during the night, the cannabis indica being discontinued.

The second day the spasms were very much lighter and the carbolic solution was only given every two hours in 30 minim doses hypodermically, which was continued until the morning of the third day when he could swallow.

A drachm of the solution in glycerine was given every three hours until the spasms ceased, afterward a drachm t. d. gradually diminished to one-half drachm t. d. until all rigidity had left.

Soon after the acid was used the urine had the odor of the drug and the smoky appearance was manifest on the second day, but no perceptible irritation of the kidneys or bladder followed.

Dr. Woods considers carbolic acid an antitoxin more reliable than serum he has seen tried.

He says it should be given early and boldly until the system is saturated.

A report is appended of a case in a horse treated by the same drug with good recovery.

Diseases of the Nose and Ear as a Cause of Headache.

Grant, in the Journal of Laryngology for September, mentions several cases of headache due to nasal and aural diseases. The most common form of nasal disease which may give rise to headache he says is adenoid vegetations in the pharynx, their removal entirely curing the headache.

Hypertrophy of the middle turbinated body is another frequent cause being richly supplied with branches of the fifth nerve.

Inflammatory affections of the accessory sinuses in their chronic forms are causes which are frequently overlooked.

If the frontal sinus is affected the headache is usually localized in the frontal region, but headache in the same spot may arise from disease of any of the other sinuses. He reports a case of frontal headache due to empyema of the antrum removed by intra-nasal puncture and irrigation.

If any symptoms indicate nasal disease we should make a careful examination and we should be on guard for ocular, renal or other than nasal causes.

Errors of refraction may be the real cause and proper glasses the treatment.

Disease of the ear may be the cause of headache though they are not so easily overlooked in acute cases, but in old standing suppurations in the attic or in cases of cholesteatoma there may be little or no discharge and the cause overlooked unless we are careful.

Headaches following operations in the mastoid may or may not be caused by the condition. He mentions a case in point in which the headache vanished after taking salicylate of soda and bromide of potash.

The author, though a specialist, is very free to admit that there may be other causes for headache than disease of the nose and ear, but as headache is such a comprehensive symptom he would simply offer his quota of causes and the corresponding means of cure. However—"He who omits to examine the teeth, the refraction of the eye, the fundus oculi, the urine and the nose leaves many causes of obstinate headache undetected."

Infantile Paralysis.

Under the title of infantile paralysis, Cole in the Journal of Electro-Therapeutics for September, discusses the common types of paralysis affecting children three years old and under, He divides them according to the seat of lesion into cerebral, spinal, and peripheral. In point of time they may be post-natal as the spinal, or pre-natal as the cerebral, or during the act of birth as the peripheral.

Those of cerebral origin and intra-uterine in point of time are usually double hemiplegias, epileptic convulsions come on early and may continue throughout life, great mental impairment, later contractions of the flexor and adductor muscles.

In cerebral paralysis during birth there is usualy a history of difficult delivery, convulsions may come on immediately after birth, or more likely three to five weeks later, there is lack of development of the child, later contractions, mental impairment and epilepsy.

Post-natal attack come on with higl fever, convulsions on one or both sides, headache, vomiting, and stupor, the acute symptoms last a week when hemiplegia is evident, temporary involvement of the facial muscles and aphasia if the child be old enough, the later history is the same as in the varieties mentioned above.

The causes of cerebral palsies are injury to the mother by intense emotional shock or some disease that arrest the development of the fetal brain, cystic degeneration, difficult delivery producing extra pressure on the fetal head, setting up meningeal hemorrhage, traumatism and acute encephalitis.

Spinal paralysis or poliomyelitis anterior acuta is the most common form in young children. It often follows acute infectious disease and is itself probably infectious, usually occurs in epidemics from July to October.

The attack comes on suddenly with fever, headache, vomiting and convulsions lasting only a short time, or the child may awake from an apparently healthy sleep with one or more limbs paralyzed. At the end of the acute attack all the limbs may be involved, including some of the trunk muscles, slow improvement sets in later but some of the muscles are left helpless.

In this form of paralysis the deep reflexes are abolished, there is muscular atrophy, the limb colder than a healthy member.

The most common form of peripheral paralysis is Erb's, due to traumatic neuritis of the 5th and 6th cervical.

As regards to diagnosis, in spinal or peripheral paralysis there is diminution or absence of response to faradism and with galvanism the normal relation to the pole or current condition is altered. There may be serial or modal qualitative change, or where an increased electro-motive force is required to produce contraction, a quantitative change.

The distinguishing feature between spinal and peripheral palsies on the one side and cerebral palsies on the other, is the *Reaction of Degeneration.*

Further in cerebral palsies the deep reflexes are present, in spinal, they are absent.

In neuritis there is, of course, a history of severe pain.

The prognosis is comparatively good in cerebral, post-natal palsy if the mental symptoms are not severe; in cerebral, prenatal the prognosis is not so good.

In spinal or peripheral palsies the prognosis is absolutely bad, with complete reaction of degeneration.

The treatment in the acute stage is symptomatic, later improve the nutrition of the nerves and muscles, and practice passive motion. Massage good in competent hands In cerebral palsy use the slowly interrupted faradic current, giving each affected muscle three or four contractions every other day.

In spinal or peripheral, if the muscles will not respond to faradism, use the continuous current of 4 to 6 ma. strength, every other day; as soon as the muscles will respond to the faradic current use it and the combined galvano-faradic.

If there is no response to the continuous current use the static spark. Patience is the watchword in the treatment of these cases.

Do not take a case unless the parent will agree to continue it *twelve months.* The treatment must be given by the physician and not by a nurse or the parents.

Cheap family batteries, so-called, to be studiously avoided.

If the case is too far advanced then the surgeon must come in with braces, subcutaneous tenotomy, or the transplantation of tendons

The Weather and Influenza.

A contribution to the study of meteorologic states etiologically related to influenza epidemics is given by Zahorsky in the Medical Review for September 16th.

Not much stress is laid upon this relationship by modern authorities, but he considers the connection intimate. Thirty-six per cent. of the epidemics occur during December, January and February, while June, July and August show only 15 per cent. The epidemics in winter are more universal and more severe.

The lack of proper ventilation in winter is considered a chief cause. The bacilli rapidly perish in water and are exceedingly sensitive to drying, they do not develop at a temperature below 70 or 75 deg. F.

The contagion is not conveyed by the outside air, but by particles of moist secretion thrown into the air by the coughing and sneezing of the patient.

The miasmatic origin of the disease is completely upset. Moist, stagnant air retains the activity of the bacilli and allows a concentration of the number of germs, thereby increasing the virulence of the contagion.

The dissemination and spread of the disease is carried on by individuals sick with the disease and by fomites, and so an epidemic follows the excursions of commerce and travel.

It has a short incubation period and the spread of the disease is rapid owing to the mingling of thousands of people daily, the air of our department stores, theatres, office buildings, schools and other public places being very favorable for the germs.

For instance, a drummer may infect two or three clerks, who in turn infect a number of customers, who infect their families, or two or three persons coughing and sneezing in a crowded theatre may infect a hundred or more, so one half sick child at school may be the center for a rapid spread of the disease,

Temperatures that prohibit ventillation usually coincide with the greatest number of new infections.

The concentration of the poison may have a marked effect. Dr. Zahorsky treated a number of cases for two months, when he was called to see a colored family of ten who were sick in one room; three days later he developed the disease. The humidity of the air is important, it must be moist for the favorable development of the bacilli.

He considers the hot-air furnace as superior to the steam or hot-water radiators for heating houses, as the dry air is more or less fatal to the bacillus of influenza.

It is still an open question whether the cold air of theoutside or the hot stifling air of our dwellings becomes the most predisposing cause of respiratory disease.

In institutions where all the windows must be closed in order to maintain the proper temperature, bronchitis, pharyngitis and pneumonia are common. In such cases thorough fumigation is very beneficial.

Electrical influence he does not think of much potency. Persons spending most of the time out of doors had milder attacks than those who lived indoors.

He concludes that influenza is a contagious disease transmitted by infected particles in the air and its transmission can be fully explained on the grounds of non-ventilated rooms. and the great variety of human intercourse.

The meteorologic states favoring the extension of an epidemic are those that insure stagnant and foul air in public buildings.

The Hygiene of the Nose.

Some practical directions for the cure of this important organ are given by Stein in the Medical Brief for September.

Respiration, olfaction, audition, speech and expression, all depend upon a nose—one in comparatively good condition.

As an auxillary to the lung in respiration the nose fills a very important place. Especially so since so many of us must breathe the air of town and city.

Post-nasal catarrh and nasal obstruction is due in large measure to neglect and lack of proper treatment. In children it may go so far as to affect the mind.

Sore throat and liability to cold are common among mouth-breathers. Croup, asthma and persistent cough may be due to nasal trouble. Proper heating and ventilation are of prime importance. Sleep with the head towards the center of the room. Use moist heat in winter and avoid over-heating, especially when dry.

Regular bathing, linen undergarments and out-door exercise. Avoid errors in diet. Do not blow tobacco smoke through the nose. Irritating gases or some one of the various snuffs upon the market may cause catarrh.

Congestion of the sexual organs has a marked influence over the turbinals of the nose.

We are urged to wash out our nose as we do our mouth.

The douche is the simplest way, about two ounces of warm Dobell's or Seiler's should be used once daily and allowed to remain for one or two minutes.

Perhaps if we took as much care of our nose as we do of our teeth we would have better health.

Disorders of the Menopause.

Cushing, in the Annals of Gynecology and Pediatry for July, says that the disorders really produced by the menopause are very few.

All the organic diseases begin to show themselves from 45 to 50, and so this is the time women who are not sound in all their organs break down and the laity, and perhaps the out-of-date doctor, say it is the change of life. The menopause is only one feature in the change of life, the woman is no longer able to bear and rear children, or to endure the continually recurring drain of menstruation, so a kindly nature provides that menstruation shall cease at about the end of the ninth lustrum.

The disorders are comparatively few and simple; we may have disorders of the circulation, as flashes and flowing, or disorders of the nervous system, as palpitations, fainting, hystero-neuroses and psychic disturbances.

There are, of course, complications or disorders incident to the period of life during which the menopause occurs.

The sudden hemorrhages that occur at the menopause should be carefully looked into as we will not infrequently find some beginning grave organic disease.

Many of the nervous symptoms must be considered as disturbances of regulation and not as diseases.

Dr. Cushing believes, after carefully observing a number of cases, that the disturbances of the menopause are due largely to want of proper relation in time or in amount between the diminution of functional activity and the involution of the ovaries and of the uterus respectively.

When the function of the ovaries ceases too suddenly for the uterus, or when the uterus is exhausted much sooner than the ovaries, then we have flashing and flowing, headaches, nervousness and hysterical manifestation of all kinds, depression, change of temperament for the worse, melancholy and insanity.

Of the diseases incident to this time of life the first and most important is cancer, and in all cases of undue and irregular flowing a thorough local examination should be made.

All cases of incipient cancer of the uterus are easily diagnosticated by competent examiners.

In the early stage of uterine cancer total hysterectomy gives a mortality of less than 2 per cent.

A large proportion, perhaps a majority of the cases where extirpation is performed early never have relapse or recurrence in the scar or elsewhere, and they enjoy the best of health.

Next to cancer as the most frequent cause of hemorrhage at this period, comes fibroid polypus or fibroid tumor.

Other conditions to be properly attended to, are, adenoma of the uterus, which may pass on into cancer, simple endometritis, retroverted, heavy or sensitive uterus.

In regard to the nervous symptoms great caution should be used in the treatment by narcotics.

The *Tincture of Time*, the mightiest of remedies, will aid us and the patient greatly in a permanent, quiet and peaceful cure.

Interstitial Pregnancy.

A case of this rare form of ectopic gestation is reported by Smith in the Medical Record for September 9th.

The patient was 24 years of age, married one year, menstruation regular until the past two months. The night previous to the doctor's call she attended a ball and danced most of the night, ate a late supper. The next day she did some hard housework besides walking about a mile. She was suddenly taken with pain in the abdomen and faintness, this soon passed away and she walked home. The bowels began to move freely with some pain.

On examination the abdomen was found distended with gas, and tenderness on pressure. Examination of the pelvic organs negative, except the uterus was about double the normal size. Pulse, respiration, and temperature normal. Treatment was given for hysteria and intestinal indigestion.

Early the next morning she had several attacks of sudden pain and unconsciousness, after one of which she died.

The autopsy showed three quarts of blood in the abdomen, a large clot in the cul-de-sac, extensive laceration of the uterus just to the right of the median line and posteriorly.

The tubes, ovaries and ligaments were normal. The whole fundus of the uterus showed degeneration and thickening of the wall, a portion being very soft. A ruptured amniotic sac was found containing chorionic villi which had no connection with the uterine cavity, but was enclosed in degenerated uterine tissue. The uterine wall in other portions was firm and normally thickened for a two months pregnancy. The decidua had formed in the uterine cavity and the cervix contained a mucous plug.

Sections of the uterous showed extensive perenchymatous and fatty degeneration, as the area nearest the rupture was almost entirely fat.

Malaria in Children.

In the concluding article on malaria in children by Moncorvo, in Pediatrics for September 15th, he takes up the prophylaxis and treatment of this disease.

Habitations which are low, damp and badly ventilated should be avoided; children living on ground floors make up the majority of the victims of malaria. Country people should live in high localities. Stagnant water in city as well as country should be avoided. Lakes in public gardens are noxious unless the water is constantly renewed.

Protect children from mosquitoes, or if well-to-do remove to some non-malarious district.

Water should be sterilized for children, and during the hot season the diet should be carefully attended to. Digestive disorders and colds predispose to malarial infection.

Quinine when malaria is epidemic should be given in prophylactic doses, 2 to 3 grains, arsenic of no prophylactic value.

As to treatment the drug is quinine properly administered. It does not possess a cumulative action in children and should be given at regular intervals as long as there is any suspicion of a trace of the disease.

He uses the basic sulphate, bisulphate, bromhydrate and chlorhydro-sulphate, as these salts are rich in percentage of alkaloid. They can be administered by the mouth, rectum, endermic or hypodermic method. For nurselings and mild cases in older children the daily dose is from 3½ to 7 grains by the mouth; in medium cases in older children he gives 7 to 14 grains, and in serious cases the age is disregarded and 22 to 45 grains may be given in the 24 hours. The interval in giving should be from one to two hours, according to the severity of the case.

The rectal administration is not at all effective, as so much of the drug is wasted, if this method is ever indicated the suppository is preferable to the enema.

Quinine by the dermic and endermic method is inert.

The hypodermatic method is the method of the future.

The neutral chlorhydrate or chlorhydro-sulphate are soluble and concentrated, and are the best for this plan of administering. All the modern aseptic technique should be employed; the injection should be made behind the trochanters or between the shoulder blades and should be deep enough to reach the muscles, as the deep injections are more painless and certain.

The intravenous method of Baccelli he has never used.

Arsenic is valuable, but too feeble to be effective in severe cases, it can be used as a tonic and nervous roborant, as well as for its mild specific action.

The salicylate of soda has not proved efficacious.

Filtered decoction of lemon he thinks too bulky and not to be depended upon in pernicious cases.

The coal-tar products he considers useful in reducing high temperature and eliminating toxins; they may be given alternately or jointly with quinine.

The tincture of sunflower leaves or flowers compared very favorably with quinine and he recommends the use of helianthus annuus in malaria.

He has used, by way of experiment, methylene blue in 36 cases (age from 23 days to 14 years), 10 were cured and 3 improved.

Phenocoll chlorhydrate and asaprol were also used. But apart from the fever and the germs he gives calomel for the bowels, in some cases with podophyllin and salines. Irrigation of the mouth and nasal cavities with antiseptic solutions to avoid secondary infection.

Intestinal antiseptics are used with good results.

Hypnal, chloralose, and trional are recommended as hypnotics.

Hypodermics of ether, camphorated oil or caffeine when adynamia or algidity.

Caffeine the best because of its three-fold property—general tonic, cardiac tonic and diuretic.

The organotherapy of malaria in children is not sufficiently tried as yet to warrant notice as to results.

Ozone and its Generation by the Static Current for Therapeutic Use.

That ozone is a valuable scavenger in the world of nature has been known for some time, but to produce it artificially for therapeutic use was attended with some difficulty.

Bleyer, in the Medical Record for Sept. 9, shows a very simple and practical method of producing it in unlimited quantities by the static current for use in pulmonary disease.

The ozone generator consists of a glass globe having two poles within with silver points so as to give a fine and large brush discharge. The poles project through the sides of the globe and are connected with the sides of the static machine. A hollow pipe leads frem the globe to the mouthpiece. Just outside of the globe is attached to the pipe a small reservoir in which a

piece of cotton is kept saturated with some essential oil, thus keeping the ozone free from any of the irritating acids of the air. He has also arranged a cabinet apparatus which will give,in combination with ozone, the actinic rays of light of a high violet so that a patient may inhale ozone and enjoy sunshine no matter what the weather is outside.

Dr. Bleyer considers the tincture of the chloride of iron the best drug to use in connection with ozone or the application of the galvanic current over the stomach and front of the chest wall one-half hour after the dose has been given. Upon anemic patients this treatment is said to have grand effects in a short time.

Membranous Sore Throat.

Beverly Robinson reports a very interesting case of membranous sore throat in the Medical Record for September 2d.

To a man up a tree it looks very much like a case of diphtheria, but two expert microscopists could not find the Loeffler bacillus and so the case was treated with antitoxine anyway and got well.

The patient was a young lady 18 years old, for several days had what appeared to be an ordinary case of follicular tonsillitis, but at this time a white membrane appeared between the follicles, with increased pallor, loss of strength, swelling on both sides of the lower jaw, increased obstruction of the fauces; later there was intense pain in both ears and back of head; the day following a culture was made; the next day (March 5th) there was several attacks of heart failure. March 6th the patient was soporific, indifferent, heart weak, restless, stertorous breathing, membrane over both tonsils, the pillars of the fauces and the uvula. 2,000 units of serum No. 8 of the Health Board was injected. In two hours she awaked, said she felt better and drank a glass of milk with brandy through a glass tube. Fifteen hours after the injection there was no membrane on the uvula or fauces and less on the tonsils. Nine days later (March 15th) the patient had another attack of heart failure, and was restored only by repeated and varied stimulation.

At the same time there was severe pain in the throat and for several days there was a semi-paralytic condition of the soft palate with marked albuminuria.

Though pronounced dysphagia there was no regurgitation of liquids or solids through the nasal passages.

On March 15th the tonsils again became swollen but no recurrence of membrane; they had a boggy, edematous appearance. The throat became obstructed, swallowing painful and difficult, suddenly during the day about a teaspoonful of blood with mucus from the right tonsil, no pus.

The next day the patient was improved and continued to, though on March 26th she had a slight attack of heart failure on going up a flight of stairs, though vigorously assisted by a nurse. On March 27th there was a small amount of pus from the right tonsil while the throat was being examined.

The temperature throughout the course of the disease did not go above 101, and was at that point only for a few hours.

The doctor believes that the antitoxin saved the life, and so he advises, in cases of doubtful membranous sore throat, when the signs of poisoning are increasing and threatening, the injection of antitoxin.

He asks some questions about the albuminuria and the antitoxin, as to whether he should disinfect the room as in true diphtheria and if this case was likely contagious.

He believes in a good diet if there is little or no fever.

The doctor states that the board of health labelled, a mild case of angina, diphtheria for him last winter which, of course, gave the family a lot of seemingly unnecessary trouble, and he suggests a personal consultation with an authorized member of the board so that the proper basis of sanitary procedure can be determined before absolute rules of action are carried out.

Hemoptysis.

Hemoptysis, as limited to that form which applies to the bronchial tubes and lungs, is discussed by Mays in Merck's Archives for September. He divides the subject into two classes, (1) from a break in the structure of the continuity of the lung as excavation and (2) where no break is present.

The anatomy of the pulmonary circulation is developed, showing the loose, unsupported condition of the pulmonary vessels and firmly supported bronchial or nutrient vessels, the much larger quantity of blood carried by the pulmonary than by the bronchial vessels, the greater thinness and delicacy of the walls of the pulmonary vessels as compared with the bronchial.

So that we are prepared to believe that when blood is raised in any quantity from the lungs it comes from the pulmonary and not from the bronchial capillaries.

The chief causes of this condition are derangement of the vaso-motor nerves going to the pulmonary vessels, syphilis, rheumatism, alcohol, etc., so that we may have

pure neurotic, alcoholic, syphilitic and rheumatic hemoptysis.

Alcohol destroys the integrity of the nervous system and thereby engenders hemoptysis and pulmonary consumption. The earliest toxic effect of alcohol is to vitiate the elasticity of the walls of the capillary blood vessels as is seen in the stomach, the ruby nasal organs, in the dilated capillaries and on the cheeks of many alcoholics.

In the treatment, the bleeding requires immediate attention, this demands constant and systematic rest in bed, cold to the chest, ¼ gr. morphia hypodermically, and if necessary, 10 grains of asafetida by suppository at bedtime. As nourishment cold beef-juice freshly expressed and cold fresh milk. Astringents such as lead acetate,gallic acid, salt, turpentine, etc., of doubtful efficacy. The permanent styptic is strychnine given in progressive doses, 1-32 grain. four times daily, gradually increased to 1-15 or 1-10. Quinine, acetanalid, phenacetin, the hypophosphites, phosphoric acid, iron and cod-liver oil are highly indicated. Pulmonary gymnastics forbidden. Sitting up must be done gradually. Rest the vital factor in the treatment of all pulmonary diseases.

In the alcoholic form of hemoptysis in addition to the treatment outlined, larger doses of strychnine will be tolerated, Cayenne pepper, from ½ to 1 grain of the tincture every hour.

For syphilitic hemoptysis, give mercury, the following prescription being recommended:

℞ Strychnine Sulphate.... 1 gr.
Corrosive Sublimate.... 1 gr.
Pepsin .....30 gr.
Pow'd Licorice Root.... q. s.
Divide into 32 capsules.
Dose: One capsule every 4 hours.

The green iodide, potassium iodide, and syrup of hydriodic acid may also be given.

For rheumatic hemoptysis, the salicylate of sodium is the one remedy.

Seasickness.

Seasickness is not a disease of the stomach or alimentary canal, but a functional disease of the central nervous system, says De Vries in the N. Y. Medical Journal for September 16th.

The prominent symptoms mentioned are, general depression, giddiness, nausea, vomiting, and derangement of the bowels and urinary organs.

He divides it into four stages: depression, exhaustion, reaction, and convalescence.

Seasickness instead of being beneficial is decidedly injurious as scientifically there is no more reason for seeking an attack of seasickness than of diphtheria

Dr. De Vries has been ship surgeon on various mail and passenger steamers, necessitating frequent passages across the English channel and the North Sea which are generally very rough and choppy. He says that seasickness is a series of mild concussions. The young and the aged rarely suffer from it; children may vomit out of pure sympathy without previous or subsequent sickness. It is most frequently seen in those of a highly sensitive and nervous temperament.

The first symptom is abnormal appetite, but after gorging at the table, the other symptoms rapidly follow.

Headache is not an essential symptom, cerebral congestion and vertigo may be present, hopelessness a constant accompaniment, pain in the back is sometimes present and precedes nausea and vomiting.

Constipation or diarrhea may be present, neuralgic pains, chilliness, flashes of heat, exhaustion and suppression of the menses are occasionally met with.

The vomiting is often sudden and projectile, and after a time the ejected matter is composed of intensely acid gastro-biliary secretions. All secretions are diminished except the saliva, and there is complete anorexia.

The mental depression is very characteristic, the victim praying for speedy death to end his miserable suffering.

The attack lasts from two to five days, when reaction sets in.

Seasickness can hardly be mistaken for any other disease, though it may simulate gastro-enteritis at first.

In seasickness we have the intense nausea and constipation, the constant and violent vomiting, and later retching, and the loathing of food more pronounced.

For treatment in mild cases, a prolonged even inspiration as the vessel rises followed by expiration during the descent is efficacious.

He does not think bromides given for a week previous to sailing of any benefit, as the irritant action of the salt upon the stomach rather adds to the liability.

He opens the bowels by calomel, phosphate of sodium or a saline purge, a half ounce of Epsom or Rochelle salts should be taken the night previous to embarkation, at 7 A. M. of the day of sailing 20 grains of the bromide of sodium is taken and repeated one hour before the vessel sails.

Remain on deck constantly save for meals and sleep. Vichy and Apollinaris should be indulged in freely throughout the passage.

For those who have not undergone this preparatory treatment, he recommends aro-

matic drinks, lemonade, champagne and imported ginger ale, the bromides if they can be retained, the horizontal position, avoid cold food, spinal ice bag, on deck all the time possible, nitrite of amyl in full doses, morphia in severe and obstinate cases, the patient being kept under its influence for 24 hours. Cocaine he has not found of any benefit.

Ludwig's Angina.

The calling of every form of deep cervical abscess, Ludwig's Angina has been the cause of much confusion, says Hamann in the Cleveland Journal of Medicine.

He agrees with Koenig that it would be perhaps better to drop the designation entirely. We understand the etiology of these abscesses and inflammations much better than we did when Ludwig wrote his article.

He recognises two sources or means of infection by the lymphatics, the usual way, and of the ducts of the salivary glands particularly the submaxillary. Dental and peridental affactions are the most common starting points though any septic process in the mouth or throat is liable to be followed by lymphatic infection and glandular abscess. The submaxillary region is most often involved, as the glands here located receive their lymph supply from the oral cavity.

The anatomic facts which relate these abscesses are mentioned; the arrangement of the fascia and the proximity of important structures make an accumulation of pus in this situation very interesting. Five spaces are mentioned where pus may be more or less confined, (1) at the submaxillary gland, (2) between the trachea, larynx and thyroid gland, the previsceral space of Henke, (3) around the great blood vessels of the neck, (4) behind the esophagus and pharynx, the retrovisceral space, (5) at the lower end of the sterno-mastoid.

While these spaces are not entirely separate from one another, still an inflammatory process is not apt to extend from one to the other unless there is considerable tension.

There is swelling, pain and fever but Dr. Hamann does not place too much reliance on the amount of fever. Board-like infiltration is characteristic though not indicative necessarily of pus. The pharynx or trachea may be compressed. In the early stages he uses heat in the form of poultices. Hilton's method is best in opening, drainage tubes should be used instead of gauze for drainage. Several incisions may be necessary. If the abscess is deeply situated, carefully dissect down to it. The origin of the infection should be removed, a carious tooth drawn and disinfecting mouth-washes used.

He concludes by calling attention to the *phlegmen ligeux* of Reclus and considers it a chronic inflammatory process in elderly persons in whom the germs have lost some of their virulence and hence do not cause an active leucocytosis and reaction of the tissues.

The Physiological Basis of Hydro-Therapy.

Hydro-therapy is a method and not a system, says Juettner in the Dietetic and Hygienic Gazette for September.

He blames the charlatans and uneducated empirics for the disrepute into which the method came, but from which it has come to stand among the logical scientific remedies in the medical art.

Water he says is simply a convenient and inexpensive carrier of heat and cold, so that hydro-therapy becomes synomous with thermo-therapy.

The physiological basis of hydro-therapy then becomes the physiological effects of heat and cold primarily upon the skin and secondarily upon the system at large. Upon the skin heat or cold act as irritants or excitants.

Heat and life are inseparable, as heat makes possible and accompanies the conversion of chemical elements into the forces and functions which constitute the life of the organism. By controlling the heat producing process we regulate oxidation, functional activity, nutrition, and tissue change.

The sedative action of a warm bath is caused by endosmosis by which an edematous condition of the nerve endings is produced.

Nerve impulses are received and carried with less promptness, and so a state of comparative quietude of the nervous system is brought about.

Hydro-therapy effects the vital processes through the blood-supply.

Nutrition and excretion are both controlled by the blood current and by the application of water we control the blood.

Reaction he calls the pivotal point upon which the science of hydro-therapy revolves. Thus it has been shown that cold water to the abdomen will dilate the vessels of the brain and warm water will contract them.

He distinguishes two areas, the primary, that to which the thermic stimulus is applied, and the secondary, that which is rendered anemic by the reaction.

A cold pack to the legs will draw blood from other parts of the body as reaction comes on.

By means of the cold pack we may lessen hyperemia of an internal organ, and thus deprive an inflammatory process of its work-

ing capital. It is venesection without the loss of blood.

So powerful an agent must be intelligently used, and belongs to the educated physician and not to the empiric. Calcareous vessel-walls, an apoplectic condition, luetic changes in the brain or spinal cord are contra-indications. Reaction *must* take place after every application to obtain good results.

Dorsal Percussion.

We sometimes skip the bony ridges in making percussion over the back, but according to Ewart, in the International Medical Magazine for September, we are missing some valuable points in the diagnosis. It, of course, implies some exertion and may be pain to the percussion finger, so Sansom's plexímeter may be used.

He gives the anatomical relations in health as shown on the dead body and by the Rontgen rays.

He says that the vertebral spines are plexímeters, by percussing them we may learn something of internal organs and of the condition of the vertebræ themselves. A vertebra diseased will give a different sound from one that is porous and healthy.

The scapula is a large plexímeter and should be utilized in percussion. The scapular area has a more resonant note than the neighboring pulmonary surfaces though the latter are comparatively thinly covered. In pleuritic effusions dullness may be taken up by the scapula and conveyed beyond the actual site of the fluid.

He gives a normal dorsal percussion map as follows: three resonant areas, (1) a median strip of spinal resonance; (2) lateral bands on either side of the spines; (3) scapular; four dull areas, (1) interscapular, (2) post-cordial, (3) the post-hepatic, (4) the post-splenic.

The individual spinous processes may be percussed when comparative dullness will be found at the fifth dorsal, and also over the eighth and ninth; this is due to the divergence of the trachea and the presence of the infra-tracheal glands opposite the fifth and the left auricle opposite the eighth and ninth.

Spinal percussion may show local tenderness, unsoundness of the individual vertebra from the infiltration of pus or solid deposit, aneurysms, tumors, inflammatory thickenings, abscesses, etc.

The lower dorsal dull patch at the level of the eleventh and twelfth spines is not the dullness of pericordial effusion, but of the liver, sometimes of the pancreas and must be considered the normal visceral dullness.

Ligation of the Dorsal Vein for Functional Impotence.

Broome, in the Medical Review for September 9th, reports a case of functional impotence in a young army officer, age 32, who was completely cured by ligation of the dorsal vein of the penis. The immediate effect was considerable venous stasis and enlargement of the organ. The next day the penis was very much discolored over its dorsal half and there was an uncomfortable feeling of constriction in the body of the organ. The blackened condition gradually faded away but the swelling subsided slowly, and four months after the operation the penis was one-third larger than before the vein was tied. The result was very gratifying to the patient, and he is now the happiest of men.

In conclusion, only properly selected cases may be exposed to the operation in order to bring and maintain it within its legitimate scope; for it is true that in neurasthenic cases, where the genitul organs are small, pale, flabby and relaxed from excessive masturbation or other similar causes, with little sexual desire, the operation would be unavailing and, in a measure, cruel.

Some Tendencies in Abdominal and Pelvic Surgery.

In the Fort Wayne Medical Journal-Magazine for August, Chas. A. L. Reed discusses some of the tendencies in abdominal and pelvic surgery. The decline of the pessary is striking when we remember that 25 years ago the graduating exercises at our medical schools consisted in giving a young man a diploma, a pessary and a Godspeed. He mentions his own method of making pessaries from plaster casts of the cervix and upper part of the vagina; this method was only employed in two cases and only partially in the last, as the cast had to be picked out in fragments under chloroform anesthesia.

The passing of incisions of the cervix for dysmenorrhea is also noted, together with the fact that we are now able to make a more refined diagnosis and have a better understanding of the etiological factors underlying the condition, and so by sagacity we may proceed with intelligence in applying the curative expedient which now yields us our most satisfactory results. The great work of Emmet in detecting tears of the cervix and devising the operation for their cure should not be forgotten, at the same time the tendency is to operate in fewer of these cases and only in those where the lesion is so pronounced as to be the demonstrable cause of secondary conditions.

In regard to cancer of the uterus the tendency is only to operate in the early stage and then only the complete removal is permissable. The high amputation of the cervix is mentioned only to be condemned. Battey's operation has well defined limits though the tendency is not under any circumstances to remove normal ovaries.

The unsexing of women is a misnomer when applied to diseased appendages, and should never be used as an argument against the relief of pain and suffering. A spirit of conservatism is abroad in the land, but we should be very careful that this spirit is not carried too far.

Asepsis and Suturing.

As preface to a description of the minor injuries and diseases of the various organs, Van Schaick, in the International Journal of Surgery for September, discusses asepsis and suturing.

To disinfect instruments dip them for twenty minutes in boiling water. Cutting instruments whose edges are blunted by boiling should be placed in pure carbolic acid for a few minutes and then washed off in alcohol, being handled with a pair of forceps.

Dressings may be boiled, steamed or *formalined*. He describes three ways of sterilizing the hands, each one of them to be proceeded by a thorough scrubbing with soap and warm water and nail brush for twenty minutes.

The first method is permanganate of potash and oxalic acid and bichloride 1-1000.

The second is with chloride of lime and carbonate of soda, equal parts, with this the hands and arms are scrubbed, then wash in 1-1000 bichloride.

The third method is to put the hands for ten minutes in 95 per cent. alcohol and then wash off with the bichloride.

Rubber gloves are recommended.

Ligatures from a reliable firm should be used, already sterilized, otherwise boil for half-hour.

Sterilize the patient's skin with soap and water with scrubbing, 1-1000 bichloride and alcohol. A wet bichloride dressing for several hours before the operation a good plan. In accidental wounds copious washing with salt solution 8-1000, peroxide and bichloride. In infected wounds use chloride of zinc 20 to 40 grains to ʒi or permanganate of potash 1-200.

Nitrate of silver no good.

About suturing he says that there are ten surgeons who can operate successfully to every one who can sew up the wound neatly and efficiently. The principle of correct sewing is that the direction of the stitch should be at right angles with the lines of incision.

In angular wounds first stitch the angle then the sides as straight lines.

In curved incisions the stitch should be in the radii of a circle of which the wound forms part of the circumference.

Other than stitches we may use adhesive plaster or collodion. Plaster should never be placed directly on the wound.

If there is much tension or if the wound is large, nothing but suturing will do.

The Surgical Treatment of Nasal Catarrh.

In order that the nose may perform its functions properly there must be freedom from contact of its various parts says Sumner in the Journal of Medicine and Science for September.

He considers that an enlargement, causing the inside parts of the nose to touch each other, acts in the same way as a foreign body, producing a catarrhal discharge.

This contact may be due to changes in the septum or in the turbinate bodies, or in both. This condition produces what is commonly known as catarrh, and as the breathing space becomes less the patient becomes a mouth breather with all its evil effect.

Nasal obstruction is also the cause of a large class of reflex neuroses such as headache, eyeache, hay fever or asthma, etc. Purulent inflammation of the associated cavities may be a serious accompaniment. He believes in a close relationship between the nose and brain and considers free nasal respiration necessary for normal brain action. He mentions the fact that Napoleon always selected men who had large noses for officers, believing that the breathing of large columns of air kept the brain cool.

The treatment of nasal obstruction may be medicinal especially if there is any constitutional taint, but the majority of cases must be treated surgically.

He shows by diagrams how the obstruction may occur and how it is possible to restore the nasal passages by removing the displaced and enlarged portions.

In children the most usual cause of nasal catarrh is enlargement of the faucial and pharyngeal tonsils which blocks up the back part of the nose. In adults the trouble is usually with the septum or the turbinate bodies.

In hypertrophy of the middle turbinate he advises a partial amputation, only so as not to take away too much respiratory tissue, at the same time enough must be taken to restore patulency.

The presence of polypi or other tumors may produce and sustain a catarrhal condition.

He concludes that it is important that the public should have some knowledge of these causes of catarrh in order to be protected from the claims of the patent medicine advertisement and from the wiles of the charlatan.

Relief in early life will save many later evil effects.

Reflex Symptoms in Disease of the Rectum

Watkins, in Medicine for September, reports three interesting cases illustrating some of the common reflex symptoms from disease of the rectum.

He states that the patient may insist that the trouble is the uterus, ovaries or the bladder, and all the symptoms, or at least the prominent ones, are referable to these organs, yet on careful examination we will find a predisposition to dysentery, the passage at intervals of glairy mucus, the sphincter is abnormal, contracted and very sensitive. On either the front or back surface, or may be both, of the rectum we will find an area, varying in size from a 25 cent piece to a silver dollar, where no mucous membrane exists; it begins about the mucocutaneous juncture and extends well up. The base of this region is pale with irregular edges and the depth not more than the thickness of the mucous membrane and are easily overlooked in a bad light.

Some of the symptoms mentioned are amenorrhea, pain in the side and back, and in general typical neurotic symptoms.

Weak back and indigestion may also be present.

Dilitation, application of nitrate of silver and cutting through the base of the ulcer was the treatment used. Pure nitric acid was applied in one case with good results.

In one case the ovaries had been removed leaving the patient in as bad or worse condition than before, when the proper treatment of the rectum entirely relieved all the symptoms.

Inoculation Through the Digestive Tract.

Vitale, in the Medical News for September 23, makes a contribution to the yellow fever discussion in the case of Sanarelli vs. Sternberg et al.

He considers inoculation through the digestive tract exceedingly difficult and in many cases impossible, and mentions a number of experiments in affirmation.

He takes up the opposite findings of Reed and Carroll, who produced hog cholera by feeding three hogs on warm cultures of the bacillus icteroides and Wasdin and Geddings, who tried the same plan, but were unable to produce the disease at all.

He considers Dr. Sternberg's declaration, which was made on the strength of Reed and Carroll's result, that the bacillus icteroides and the bacillus of hog cholera were identical, was without sufficient evidence.

Even if hog cholera was produced by the feeding of the bacillus icteroides it might be the result of the presence of the latter bacillus upon the activity of the former, as it is well known that certain bacteria may be rendered virulent by the presence of other germs which favor their growth and development.

The bacillus of hog cholera is frequently found in the digestive tract of the hog without producing any pathogenic effect.

"A non-virulent colony of hog cholera bacilli might, under the influence of the symbiosis existent between it and the bacillus icteroides become malignant and productive of pathological lesions where it was but a harmless parasite before."

He considers the conclusions of Reed and Carroll that the bacillus icteroides is a variety of the bacillus of hog cholera, precipitate and hasty.

Experimental inoculation by the mouth is a most insecure method and conclusions drawn from results thus reached should be accepted with caution and submitted to a careful examination.

Dr. Vitale is a former co-worker with Sanarelli and is well qualified to speak on this subject.

Albumosuria.

Six cases of this rather rare condition are reported by Benedict in Medicine for September.

In two of the cases the albumosuria was due to cystic trouble, there was a remote pyogenic process in one case, one was renal, which stopped immediately after uremic convulsions, one was of a hepatogenic or enterogenic origin.

The test used was to float the urine over the copper alkaline solution used in testing for sugar, on careful warming a lilac band develops in the presence of albumose or peptone. He considers this test sufficiently delicate and that it may by boiling be converted into a reliable one for sugar, the text books to the contrary notwithstanding. In two of the cases examination of the blood was negative, in one leucocytosis was found, but a differential count showed normal, eosinophiles being absent in two hundred cells.

In his experience albumosuria has not necessarily followed leucocytosis.

He thinks much confusion has been brought about by using tests of too great delicacy.

Rabitschek's finding 60 cases out of 121 patients examined is explained in this way. In 235 analyses on urines from 147 cases albumose was found positively in only five cases.

He considers the absence of this condition of as great practical importance as its presence.

He has failed to find it in most cases of albumosuria, never in diabetes nor in gastric cancer. It is also absent in intestinal cancer, gastric ulcer and Addison's disease.

Cheyne-Stokes Respiration in the Early Stages of Interstitial Nephritis.

The occurrence of Cheyne-Stokes respiration during sleep in three cases is reported by O'Donovan, in the Medical News for September 16th, as a diagnostic symptom of importance in the very early stages of interstitial nephritis at a time when albumin may be entirely absent from the urine.

He notices the occurrence of Cheyne-Stokes respiration in advanced stages of heart disease and Bright's, but in these cases it is of very little diagnostic importance, but in the three cases reported it was the first and only symptom worth mentioning except one case.

The first man was 54 when the Cheyne-Stokes respiration was first noticed, only at night, otherwise healthy and vigorous, it was not always present, but appeared after any overwork or worry. This went on for seven years, until his death from Bright's disease, the diagnosis being made positively a year before his death. The last six months he had several periods of a few days at the time when the peculiar respiration was continuous day and night unless relieved by opiates.

The second case was a woman, age 52, under treatment for uterine trouble. She was apparently healthy in every other way except an intermittent discharge from the uterus, yet she had the Cheyne-Stokes respiration every night, especially marked after fatigue or extra exertion. The urine was free from a trace of albumin at this time. She died three years later of Bright's disease with uremic coma and convulsions.

In the third case the man was 72 years of age, with atheromatous arteries and evident arteriosclerosis.

The peculiar respiration was noticed in his case nearly four years before his death and fully two years before albumin appeared in the urine. In his case it was also entirely nocturnal at first and in fact never developed in the day time as he died suddenly before any uremic symptoms appeared.

This is a small group of cases but very interesting as so many patients are sent away, perhaps, in the early stage of kidney disease because nothing is found in the urine.

The value of this symptom will depend, as Dr. O'Donovan states, on the accuracy of observation of the nurse or attendant, but in the wards of large hospitals it could be easily determined by a competent night nurse and the subsequent history of such patients could be carefully kept.

The importance of the recognition of chronic nephritis at as early date as possible before the kidneys have become irreparably damaged goes without saying. If it is possible to arrest the progress of the disease at all, it must be done in the earliest stages.

Alcohol as a Food.

The daily press and the temperance folks have been somewhat stirred up over the result of some experiments made in the laboratories of Wesleyan University by which it was shown that alcohol in certain small amounts is a food, being oxidized in the body. Prof. Conn of the same University takes up the subject in the Sanitarian and discusses the truth in relation to other well known facts.

A partial truth may be more misleading than complete ignorance. In the alcohol subject are bound up moral, psychological, sociological, and political questions until the very development of civilization is dependent upon it and these are the most important aspects of the alcohol problem. The secondary problems which come up have to do with the physiological effect of alcohol on the body, and this secondary part has many sides.

Alcohol effects the circulation, the digestion, excretion, the nervous system, and lastly, assimilation and use by the body. Now it is only the last one of these questions that has been touched by the recent investigation.

But some will say that these experiments have shown the falsity of certain statements much used in temperance teaching.

Let us see, it has been shown that alcohol in small quantities is oxidized, giving rise to heat and energy, and is, therefore, a partial food, but it is distinctly denied that it is a complete food and it is stated that it cannot replace body tissue. Now gunpowder is easily oxidized and gives rise to a large amount of heat and energy, and from this it might be argued that it would be a most useful kind of fuel for cooking-stoves.

Now we all know that gunpowder is very unsafe fuel on account of its secondary effects, so alcohol is a very unsafe food on account of its secondary effects.

He then shows a single aspect of the question, that alcohol is oxidized in the body and gives rise to heat. Alcohol dilates the capillaries, increasing heat radiation, so that even if it does produce heat by oxidation, the question is whether more heat is not lost by radiation than is gained by oxidation.

The contradictory statements made in regard to alcohol, that it was a food and a poison, a heat producer and heat reducer, that it was oxidized or not, arose from the fact that in the one case large doses of alcohol were used while in the other experiments only very small doses were used.

In large doses there is no doubt that the effects of alcohol are abnormal and it deserves the name of poison.

In very small doses it may be oxidized, furnishing heat and energy with no secondary abnormal effects.

But to state that alcohol is safe in any quantity is a woeful misinterpretation.

No one can state just when the secondary effects begin, and as commonly used its action is abnormal, it is not used as a food but for its influence on the nervous system, and so used its secondary effects soon follow.

So after all the question of whether alcohol in small quantities is oxidized or not is only a very small part of a very large subject.

The evil effect of alcohol upon the race is great and is apparent to all, and this effect has absolutely nothing to do with the question whether alcohol is oxidized in the body or not.

Athletics and the Male Genito-Urinary Organs.

Second only in importance to the relation of athletics to the circulatory and respiratory systems is their relation to the male genito-urinary apparatus, says Lydston in the Medical Mirror for September.

Exercise in moderation as it improves the general condition improves the organs of generation. The sexual irritability of young men which tend to produce sexual excess or abuse, may be corrected by regular exercise carried to the point of producing muscular fatigue.

He says that there is no better method of diverting the superfluous cussedness of humanity into more rational channels than to prescribe a course of vigorous training. The abuse of athletics is on the other hand one of the best ways of prematurely aging an individual. Exercise involving strain or friction upon the groins, genitals and perineum must be avoided. Cycling, unless practised within very reasonable limits, will produce hyperactivity of the sexual organs with disposition to sexual excess and aggravation of any pathological condition which may be present. Relapses of inflammatory troubles of the urethra, prostate and bladder very often follow bicycling. The bicycle built for two, he considers an invention of the devil. The systematic practice of athletics, especially that involved in the process of "getting into condition," he advises against as later in life we may develop an appetite that will get us into trouble when we give up exercise.

Puerperal Eclampsia.

The diagnosis and clinical course of puerperal eclampsia is discussed by Darle in the Medical Standard for September.

The earliest and most persistent symptom is headache, either frontal or unilateral.

Insomnia, tinnitus aurium, vertigo, amnesia, constipation, anorexia, vomiting later, are important points. Sudden epigastric pain in the latter months of pregnancy is significant.

The urine is diminished in quantity, high specific gravity and usually contains albumin and casts, though we may have eclampsia without albuminuria and frequently have albuminuria without eclampsia.

If, however, the urine contains albumin associated with blood and casts, and accompanied by the other symptoms of toxemia, it becomes of diagnostic importance. Gardener is quoted as follows: The presence of albumen in the urine of a pregnant woman is not sufficient cause upon which to base a prognosis of probable eclampsia.

The failure to find albumin in the urine of a pregnant woman is no evidence of the absence, or, at least, of the continuance of the absence, of the condition that gives rise to puerperal convulsions.

Albumin is so often found in considerable quantities in the urine of patients immediately after the appearance of puerperal convulsions that we are justified in making the statement that the convulsions are the probable cause of the albuminuria.

In the differential diagnosis of eclampsia, uremia, epilepsy and hysteria, the important points to be considered are, heredity, age, previous history, mode and nature of attack, frequency of condition, delirium; coma, the urine, the eyes, the pulse, and the temperature.

The largest number of cases occur in the latter weeks of gestation or in the first stage of labor, though cases have been observed in the second week of pregnancy and as late as the 28th day after delivery.

Pregnancy is likely to be terminated shortly and the influence upon the fetus is unfavorable. Parturition has a beneficial effect upon the eclampsia.

In the majority of instances the temperature, which has risen during the seizure, soon reaches the normal standard. In exceptional instances the temperature may remain elevated for several days. If elimination is rapidly re-established the coma quickly disappears and in the course of a very few days the patient is mentally quite herself. In exceptional cases, however, where the convulsions have been numerous and where elimination has been tardy, the coma, delirium, as well as the temperature, will persist for a number of days. A certain percentage of the cases never fully recover.

Albuminuria frequently disappears during the puerperium but may persist for a period of two or three months, or the morbid renal process which has been established during pregnancy may continue so that the patient merges into a chronic nephritis which may follow the usual course.

While the great percentage of cases recover so far as life is concerned, some of them are mentally and physically impaired. Insanity has been noted in about 6 per cent of the cases, according to Olshausen; amnesia in a certain percentage, hemiplegia in a few.

Local Anesthesia.

In the continued article on the technique of local anesthesia by Heineck, in the Medical Standard for September, he says that we must observe the same aseptic and antiseptic precautions as in other operations. Use fresh solutions, cocaine spoils with age. The cocaine must be pure, the amount used may vary from 1-5 to 3 grains, but when the latter amount is used great watchfulness must be exercised. An elastic ligature between the site of injection and the body whenever possible. Always have patients in recumbent positions.

To anesthetize the skin the solution must be put *in* the skin *not under* it.

Be careful about veins and expel the solution drop by drop; wait five minutes before using the knife. In using cocaine have at hand aromatic spirits of ammonia, nitrite of amyl and ether.

Accidents are often due to the faulty technique of the physician, such as the use of an overdose, failure to have patient maintain the recumbent posture, non-employment of means that prevent too rapid absorption, as the constricting band or tourniquet, the use of an adulterated product, etc. Among the symptoms of poisoning may be mentioned loquacity, cold perspiration, shallow respirations, rapid, feeble pulse, unconsciousness and convulsions. Cocaine can cause death by causing paralysis of the respiratory center or tetanic fixation of respiratory muscles.

In paralysis of respiratory center:

Elevate trunk and lower head.

Practise artificial respiration.

Give strychninæ sulph. gr. 1-20 hypodermically. It is the best respiratory stimulant that we have.

Give amyl. nitrite, or hypodermics of nitro-glycerine.

In tetanic fixation of muscle, give:

Inhalations of amyl. nitrite.

Chloral and bromide in the form of enemata.

Morphine sulph.

Morphine, though not an absolute antidote, is valuable in counter-acting the toxicity of cocaine. In all forms of cocaine poisoning empty the bladder and activate the urinary secretions, for sleeplessness use hypnotics or narcotics.

The infiltration anesthesia introduced by Schleich he considers good for skin, mucous membrane, periosteum, synovial membrane, fascia, muscles, lymph glands, nerves, viscera, and even bone, but it is unsuited for most abdominal and pelvic work.

In opthalmology cocaine is best.

It is not adapted to nasal, naso-pharyngeal, intralaryngeal manipulations and surgery nor for plastic work as the infiltration impairs the vitality of the flap. In malignant disease, diffuse cellulitis and in very nervous patients who can not bear to watch the manipulations of the surgeon, the method is contraindicated.

The formulæ used are as follows:

BARKER'S FORMULA.

Eucaine, - - - - 1 part by weight.
Chloride of sodium, - 8 " "
Water, - - - 1000 " "

Most operators, however, use Schleich's formulæ. They are the following:

SCHLEICH'S FORMULAE.

No. 1. Strong—for operations on highly hyperæthetic areas. Inflammation, suppuration, neuralgia. The more sensitive the parts are that you operate on, the greater must be the concentration of the cocaine.

Cocaine hydrochlor, - - .2
Morphine hydrochlor, - - - 025
Sodium chloride (ster.) - - 225
Distilled water (ster.) - - 100.
M et adde 5 per cent. acid carbol.gtt, - - - - 2

One ounce of this solution contains about 1 gr. of cocaine.

No. 2. Normal—for operations on moderately hyperæsthetic areas.

Cocaine hydrochl, - - -	0.100
Morphine hydrochl, - -	.025
Sodium chl. (ster.) - - -	.2
Distilled water (ster.) - .	100.
M et adde 5 per cent. acid carbol.gtt. - - - - -	2

One ounce of this solution contains about ½ gr. of cocaine.

No. 3. Weak—the weakest possible solution for extensive operations to be used alternately with stronger solutions.

Cocaine hydrochlor, - - -	.01
Morphine hydrochlor, - -	.005
Sodium chloride (ster.) - -	.2
Distilled water (ster,) - -	100.
M et adde 5 per cent. acid carbol.gtt. - - - - -	2

These solutions must be kept absolutely sterile.

In 3,500 cases, Schleich did not once convey infection by means of the injected fluid.

In beginning to use the infiltration method, select easy cases such as ablation of small tumors, suture of wounds. As your experience with the method increases, you can use it in more difficult cases. Experience will perfect your technique.

Pulmonary Tuberculosis.

The necessity of careful examination of patients who come to us for treatment is emphasized by Pfromm, in the Medical Bulletin for September.

In a clinical lecture he brings out the salient points in tuberculosis of the lungs. The patient shown was 28 years of age, plumber, by trade, accustomed to working in damp places. The diagnosis of consumption was made from the history of the case, cough and loss of flesh and strength, and from the physical signs, marked emaciation of the chest, particularly over the apex of the right lung, diminished movements, increased vocal fremitus, cavernous breathing and numerous rales. The presence of tubercle bacille in abundance in the sputum made the diagnosis certain.

In regard to treatment he considers the implicit obedience of the patient to the commands of the physician as a *sine qua non*. Suitable climate the most important part of the hygienic treatment, he recommends, Southern Carlifornia, Asheville, N. C., Thomasville, Ga., the White Mountains or the Adirondacks.

The patient should always be recommended to the care of a reputable physician in the place to which he goes. Walking, breathing exercise, gymnastics and a large part of time in the open air. Do not allow them to return home as soon as they feel better, but if possible let them live for some time in the suitable climate.

The diet is important, nourishment every few hours, 1½ to 2 quarts of milk per day.

When the stomach fails in tuberculosis the case is hopeless.

He considers creosote the most efficient medicine, 15 minims large enough dose, begin with 2 minims thrice daily adding 1 minim every other day until the 15 minim dose is reached. Creosotal and guaiacol are more palatable but not more efficient than creosote. Strychnine, increasing doses until the patient is taking 1-15 or 1-10 grain three times daily. Codliver oil should not be used if the patient has gastro-intestinal disturbance, otherwise it may be given in emulsion or equal parts of glycerine and oil or in frothing porter with good effect.

Appendicitis.

An interesting case of appendicitis is reported by Moncrief, in the Atlanta Journal-Record of Medicine for September.

Nearly two years before the patient had a typical case of typhoid fever. Recovery was seemingly complete, though the following spring there was some pain and discomfort in the iliac region, but there was no elevation of pulse or temperature. In April of the next year he awoke at 3 a. m., with headache, nausea and general abnormal distress, followed by a distinct chill and fever.

Pain soon become localized in right iliac region with well marked tenderness of McBurney's point.

With quiet, rest in bed, liquid diet and free purgation the symptoms gradually subsided.

On operating the appendix was found adherent to the cecum for its entire length. It was ligated with No. 2 catgut about 3-8 inch from cecum, another ligature being placed one-half inch from the first, the appendix was then severed between the two ligatures, the proximal end being buried in a fold of cecum and secured by five sutures of medium-fine black silk, while the distal portion was detached from the cecum by scissors and blunt dissection.

The oozing persisting from the site of the adhesions, a guaze drain was introduced and brought out at the upper and lower angle of the wound. The drain was removed the second day and there was no oozing after the third day. Highest pulse rate, 96; highest temperature, 99 2-5.

The lining of the tube had an ulcerated appearance throughout, but this was spe-

cially marked from tip to the largest constriction, the walls,at this portion resembling very thin paper, and at convexity of curve, seeming almost at the point of rupture. The most marked constriction almost obliterated the lumen of the tube, the opening being only large enough for ordinary pin to pass through. The redness and thin wall were not so marked towards the proximal end, but here there was more congestion and thickening. The stricture here was not so dense and there was little occlusion.

The lumen of the appendix was filled with fecal matter, one or two small masses being rather hard, but there were no concretions or enteroliths proper, nor was there any pus.

The principal point of interest in the case is the rather grave pathological condition present and the fact that no distinctly well-marked symptoms of such a condition manifested themselves. The length of the appendix and its intimate adhesion to the colon would also make us think that we should have had more prominent signs.

Urinary Solids.

The general practitioner as a rule does not go in much for a method of estimating the variations in the amount of urinary solids. However, Salisbury, in the Chicago Clinic for August, tells us of the very simple and easy way of taking the last two figures of the specific gravity, multiplying by 2.2 or Heser's formula 2.33, and we will have the proportion of solid parts in 1000 of urine. To multiply this proportion by the number of liters passed in 24 hours will give the number of grains of solid excreted by the kidneys. To obtain the number of grains to the fluid ounce, multiply the last two figures of the specific gravity by 1-1.

We may roughly estimate the amount of urea by dividing the total solids by 2, that is the amount of urea equals one-half the total solids excreted in 24 hours.

The excretion of urea is greater per pound of body weight in children than in adults, Harley's table giving 6.2 at 18 months, 3.8 at 27 years.

Ralfe's standard is taken as the normal, it is 9 grains of solids per pound in those weighing 40-60 lbs.; 8 grains in 60-120; 7 grains in those from 120-160; 6½ grains in those from 160 to 175, and 6 grains from 175 to 196.

The amount of solid depends, of course, very much upon the kind of food eaten, Lehman's table being, on animal diet, 87.44 grains, mixed diet, 67.82 grains, vegetable 59.23 grains, and non-nitrogenous diet 41.68 grains.

According to Ranke, in complete abstinence the amounts fall to 25 grains.

Dr. Salisbury shows the effect of milk and cracker diet on the excretion of solids by the result of personal experiment.

In structural disease of the kidney we may look for diminution in the amount of solids.

As this is a rough and ready method too much reliance should not be placed upon it

The Early Diagnosis of Uterine Cancer.

The importance of a diagnosis of uterine cancer in early stages cannot be overestimated and is discussed by Ashby,in the Maryland Medical Journal for September 23.

A thorough curretting of the uterus is a cure for endometrial inflammation as a rule and a return of the symptoms after such treatment should make us suspicious.

Ulceration of the cervix which resists local treatment should make us guarded in our prognosis. Erosion of the cervix often associated with laceration is not an ulcerative process, as there is no destruction of tissue.

Epithelioma in its early stages may resemble a laceration with an extensive erosion, but watery excrescences soon make their appearance and a papilloma of the cauliflower variety springs from the lips of the cervix. It is in the early stages of this process we often find the first physical signs of malignancy, and it is then possible by prompt action to remove the malignant tissue.

The origin of hemorrhage should be promply traced to its true cause. Foul discharges and the cachexia are usually not present until the last stages of the disease.

The return of hemorrhage after the menopause is a suspicious sign.

Physical signs cannot be relied upon in the early stages and the microscope is valuable.

He concludes that cancer of the uterus is a very insidious disease, and may reach an advanced stage before its symptoms are alarming.

Its early symptoms simulate those of simple functional disturbances in the menstruating woman. Hemorrhage and foul discharge are always suspicious symptoms.

Hemorrhage during or subsequent to the climacteric period should be promptly investigated.

All forms of uterine disease not responding to judicious local treatment should

arouse suspicion and lead to microscopical examination of uterine scrapings.

Lesions about the cervix should be corrected. When not corrected they should be examined at short intervals.

When in doubt as to the cause of any uterine disease, investigate for cancer.

The Radical Treatment for Hay Fever.

Clark, in the Chicago Clinic for August, discusses the treatment of this condition.

He considers the three etiological factors of Sir Andrew Clark important. 1st. A neurotic habit; 2nd, An intra-nasal pathological condition; 3rd. An external exciting course. The second factor is the one most readily overcome. Treatment may begin at any time and may be either palliative or radical. Sedative sprays containing cocaine, morphine, belladonma, etc., give only temporary relief with the danger of a drug habit and should not be used.

The radical treatment consists in the removal of all abnormal conditions found in the nose or naso-pharynx. Polypi should be removed with the cold wire snare and the pedicle destroyed with the galvanocautery. Hypertropy of the turbinate may be incised with a fine cautery from one end to the other and down to the bone, taking care to destroy as little of the mucous membrane as possible. Hyperesthetic areas may be touched with a moderately warm electrode, or tincture of iodine.

He reports one case with happy results from local treatment and he thinks that we should no longer treat these patients as incurables, but assure them that they may be easily cured when rationally and scientifically treated.

Resection of the Colon for Constricting Adenoma

Lilienthal, in the International Journal of Surgery for September, reports a case in which extensive resection of the colon was followed by recovery, though the patient was in a very feeble condition.

The trouble began two years previously with general abdominal pain, tenderness, fever and prostration. The attack resembled appendicitis, as there was a tender point in the right iliac region.

Three months later he had another attack and a few months later another except the fever and other signs of inflammation were absent, though the pain and prostration increased. An attack usually came on a few hours after eating and relief would follow vomiting and purging.

For the past year the attacks were more frequent and the anemia became profound. For some time a tumor had been noticed in the right half of the abdomen in the region of the hepatic flexure.

The case had been diagnosed disease of the gall-bladder, or pylorus, hematemesis, however had never been noted.

A mixed Murphy button was used and anastomosis made between the transverse colon and the ileum just above the valve and all that part of the transverse colon was excised.

No movement of the bowels was permitted until the fourth day after the operation, when an enema of peppermint water was followed by a copious evacuation.

On the 15th day the button passed spontaneously and without difficulty. Examination showed the tumor to be pure adenoma. There was a tortuous channel no larger in caliber than a goose-quill.

He thought it remarkable that with such severe constriction there should have been any periods of comparative freedom from pain.

The alimentary canal was completely emptied before the operation in spite of so great an anatomical difficulty. Nine months after the patient reports himself perfectly well and that he has gained 50 pounds in weight.

Movable Kidney.

The strictly medical treatment of movable kidney is discussed by Stengel, in the University Medical Magazine for September.

The two methods recommended are forced feeding and abdominal support with pad and bandage. Where there is great emaciation and the movability is due to the loss of perirenal fat, forced feeding with rest in bed will produce good results. He mentions one case of this kind in a young lady, age 29, who was treated by rest in bed, lavage of the stomach, oil inunctions, forced feeding and tonic. After four and one-half months she gained 36 pounds and the kidney could no longer be felt. He admits that this treatment is slow and that frequently the gastric disturbance will not admit of forced feeding.

Where restoration of the organ is not possible by over-feeding then the artificial support may be tried or a combination of the two methods may be used to secure temporary relief.

The abdominal belt and pad are useless when improperly made and applied. The movability is from the right above to the left below, the pad to be effective must be so shaped and applied as to make pressure upwards, backwards and towards the right. The form of pad commonly used presses

upward and backward and the patient's condition is usually made worse.

He uses a kidney-shaped pad, 3 inches long and 2½ inches wide, the concave border is one-half inch thick, while the convex border is one-and-one-half inches. It should be soft, but firm and leather-covered. The pad should be placed a little below the line passing from the umbilicus to anterior superior spine and its concave border should face upward towards the tip of the eighth rib. The pad is held in place by an abdominal belt of knitted silk or cloth secured in position with perineal straps. Occasionally the bandage is uncomfortable on account of pressure, but with a little manipulation these inconvenices are avoided.

Abscess of the Brain.

A case of brain abscess with very peculiar symptoms is reported by Sims, of the United States Army in the Virginia Medical Semi-Monthly for September 8.

Two years ago he had what was called nervous prostration, for a year he was treated by eminent spcialists with great improvement, but not entirely cured. While apparently well, he was easily fatigued, excitable, uneasy, either in high spirits or very despondent. He suffered some with indigestion, constipation and myalgic pains over the body. Any rough, jarring vehicle seemed to upset his whole nervous system, in fact any great exertion or mental effort had the same effect.

After a long trip in a rough vehicle he was much exhausted and for several days had headaches and aches all over the body with indigestion. Later he began to have severe neuralgic pains on the left side of the head above the ear, in the temporal region, the eye and face on the same side. Even morphia hypodermically gave only partial relief.

Any motion of the head or jarring would increase the pain.

This continued about ten days when he became worse, vision was lost, raving and delirious, temperature (for the first time elevated) 101, it ranged from 99 to 101 for four days, when it became subnormal and in two days death took place.

There were no rigors and but little sweating, yet he felt cold all the time.

Autopsy showed an old abscess the size of a hen's egg with thick walls and very offensive, somewhat inspissated pus, located in the frontal region of the left hemisphere. It did not come near the cortex at any point.

It had ruptured backward and downwards through the white matter until it reached the Gasserian ganglion and later the vital centres in the medulla causing death.

There is good reason to believe that this abscess developed at least two years ago, and was the cause of his neurasthenia, but under the prolonged rest in hospitals it became encapsulated and quiescent, apparently causing but little if any disturbance until it was ruptured.

The peculiar features were the peculiar movable neuralgic pains, moving from one region to another all over the cranium, the eyes, face, ears, occiput, and finally extending into the neck, and the absence of the usual symptoms of brain abscess; the slight fever, and that only a few days, becoming subnormal two days before death; also the complete loss of vision a week before his death.

Complications of Influenza.

Yarian, in the Bulletin of the Cleveland General Hospital for October, reports a case of influenza in a woman, age 40, complicated by frontal sinusitis and otitis media. She was not a very robust woman and was subject to catarrhal conditions.

A few days after the development of "grip" she had frontal pain and tenderness, injection of the eye and dryness of the nostril.

Under appropriate treatment in four days there was a free muco-purulent discharge, streaked with blood, followed by relief.

Intense pain then came on in the ear, pulse 100, temperature 102, insomnia from pain, membrane bright red and bulging; later ruptured and discharged, though the pain kept up for a few days, while the mastoid became tender at the tip.

The points of special interest are:

The severity of her subjective symptoms and the slight disturbance of temperature and pulse.

The persistence of pain after rupture of the tympanic membrane which, according to McBride, Michael and Gruber, is characteristic of the otitis media of influenza.

The hemorrhagic nature of the middle ear inflammation, which is also frequently found in this disease.

The severe symptoms pointing to thrombosis of the lateral sinus, or at least, mastoid inflammation, and their final subsidence without even a discharge from the right ear.

McBride mentions that the pains of influenza complicated by otitis media often simulate mastoid inflammation, and that fewer of these cases really result in mastoid abscess and require operation than in otitis media from other causes.

Vaginal Celiotomy.

Goffe, in the Medical News for October 7, discusses the scope and limitations of vaginal celiotomy.

He says that it is now no longer confined on the one hand to simple puncture nor limited on the other by the radical operation of hysterectomy, but that in the hands of an expert, the pelvic condition is extremely rare that is not amenable to its application.

He prefers the anterior vaginal incision, but sometimes uses the posterior in connection with it in order to secure better manipulation or freer drainage. An exploratory incision should be free from danger, should give facility for gaining the desired information and should afford opportunity for the completion of such surgical procedures as the indications may require.

He says the anterior vaginal incision fulfils all of these functions most satisfactorily. He considers that this method affords opportunity for the most complete and radical work and at the same time lends itself to every form of conservative work upon the uterus and its appendages.

In dealing with firm and extensive adhesions there is danger of tearing or injuring the intestines but the danger is connected with the abdominal route.

But if ninety per cent. of pelvic diseases can be treated successfully without resorting to laporatomy' just so many women are saved primarily from the dangers of a laparotomy and, secondly, from all the discomforts which that incision involves as well as the more remote danger of hernia.

Some Unusual Forms of Trichophytosis.

Several cases of trichophytic infection differing more or less widely from the common type are reported by Hartzell in the University Medical Magazine for June.

Some of them were mild in form and superficial in character; others were virulent, deep, suppurating, whose mycotic nature has been recognized only within a comparatively recent period.

He reports a case of superficial ringworm on the posterior surface of the left shoulder of a boy, age 10, in which there were two concentric rings, the outer one being three inches in diameter. Such cases are due to reinfection of the part primarily attacked.

He mentions a case of eczema marginatum in which the eruption was perfectly symmetrical, affecting both axillar and the inner surface of both thighs. Two weeks later the patient developed typhoid fever. During the progress of the fever the skin affection disappeared, but returned promptly with the beginning of convalescence.

A case of suppurative trichophytic folliculitis is reported, in which the upper lip was affected; it was unilateral, stopping abruptly at the naso-labial furrow, the right half of the lip being uniformly infiltrated and covered with a thick yellow crust. The hairs were for the most part firmly fixed in the follicles; a rather unusual condition.

Two cases of agminate perifolliculitis are also reported with a clear history of animal origin.

A number of cases lately reported by other observers are reviewed.

Under the title "Multiple Cachectic Gangrene." Eichhoff (Deutsche medicinische Wochenscrhrift, 1884) has published a most remarkable case of trichophytosis, which, notwithstanding its unusual character,seems to have attracted little or no attention from dermatologists. An 18-months-old child, two weeks after an attack of measles, suffered from an eruption consisting of dark-red spots, blebs with cloudy contents, and chiefly, ulcerations with steep edges, penetrating deeply into the subcutaneous tissues, many of these last lesions being covered with dry, black, gangrenous eschars. There was likewise a conjunctivitis of both eyes with swollen lids and purulent secretion. A microscopic examination of scrapings taken from the bottom and edges of the ulcers showed a fungus resembling in size and quality the trichophyton, the quantity of mycelium present being remarkable. It is also of extreme interest to learn that the conjunctivitis was likewise mycotic. The author attributes this unusual result of trichophytic infection to the cachectic condition produced by the precedent attack of measles.

The Palliative Treatment of Cancer of the Womb.

Lillian G. Towslee in the Bulletin of the Cleveland General Hospital for October, discusses the palliative treatment of carcinoma of the cervix uteri with report of two cases. Of course complete removal is the only treatment where practicable but in a number of cases we must advise against an operation, and oftentimes it is a hard question what to do with such cases for the six or eight months of life left to them.

Dr. Towslee under anesthesia curettes the mass away and cauterizes with a 50% solution of zinc chloride.

In one case this operation was performed three times. Each operation giving a period of four or five nonths of comparative comfort. The aim is to check the wasting

discharge and hemorrhage and make the patient comfortable for the short time they have to live.

Suspension of the Uterus.

A new operation for reposition and fixation of the downward and backward displacement of the uterus by intramural shortening of the round ligaments is described by Noble in the Atlanta Journal-Record of Medicine.

The abdomen is opened in the middle line when the cavity is explored, adhesions broken up, and diseased appendages removed. The round ligament is caught with a pair of light compression forceps and drawn toward the centre of the pelvic cavity which renders the distal end taunt. A pair of forceps are then passed through the posterior sheath of the rectus at its outer border one to one-and-a-half inch above a line drawn from one internal ring to the the other, spread open and withdrawn, leaving an opening sufficient to admit the finger. The finger is passed through this opening behind the peritoneum to the tightly drawn ligament from which the peritoneum is stripped for an inch or two by a succession of downward movements. While an assistant holds the forceps the operator passes another pair above the finger in the subperitoneal fatty tissue, grasping the round ligament as near the peritoneum as possible and drawing it out as far as its attachments will permit. The stripping and application of forceps is continued until the ligament is drawn well out of the wound between the rectus muscle and transversalis fascia, to the edge of the incision. The process is then repeated upon the other side.

Both ligaments are clamped together in the median line, which places the uterus near, or about the position where it is to be fixed. They are carefully freed from fat or foreign tissue.

Then on each side where the ligament appears through the opening made in the posterior sheath of the rectus muscle, i. e., the outer border,a silver or silk suture threaded upon a stout curved needle is passed through the transversalis fascia from within outward, and on returning takes about half an inch of the fascia in the stitch. It is then carried through the round ligament, rectus muscle and posterior sheath, and returned through sheath,muscle and ligament,taking in about three-fourths of an inch in this stitch. The sutures are tied carefully but not tightly, cut or twisted, and the ends of the wires folded under twice, to prevent sticking of the sharp points.

The ligaments are released at the median line, where another suture is passed, taking fascia, ligament, muscle and sheath on one side, and in the reverse order on the opposite side, and twisted or tied upon the external surface of the fascia. It is better not to fasten this stitch until the abdominal sutures are in.

Close with silkworm-gut,and apply aseptic dressings, the edges of which should be glued to the abdomen with flexible collodion. No pessary will be required unless the uterus is unusually heavy.

He reports five cases operated on in the Grady Hospital and seven in private practice.

All cases were perfectly satisfactory, except one,in which there was infection from accidental slipping of the dressing. The operation has many advantages over other operations for fixation of the uterus.

Contraindications for the Brand Bath.

Modern Medicine is very much in favor of the cold bath in the treatment of typhoid fever, saying that it is a therapeutic measure of tremendous power, but at the same time recognizing certain limitations and contraindications. The conditions which forbid the use of the cold bath are, sweating, goose-flesh appearance, cyanosis, pronounced cardiac weakness, myocarditis, intestinal perforation, peritonitis, tuberculosis, pleurisy, pneumonia, infancy and old age.

If there is persistent high temperature, though the patient is sweating, cold water with friction applied to small areas successively for only a short time is recommended and this application may be repeated every two or three hours if necessary to control the fever. It may be confined to the back and chest, thus stimulating the heart and central nervous system.

The local application with friction is also to be used if there is the goose-flesh appearance preceded by a fomentation or some other hot application to the spine.

In cyanosis a short hot bath, hot enema, or hot fomentation to the spine may be followed by cold friction, beginning with the chest, then the back, and last of all the legs.

For cardiac weakness use a cold precordial compress with hot and cold applications to the spine.

The cold bath when used from the beginning of typhoid fever greatly lessens the liability to perforation and peritonitis, but if they do come on the bath should be omitted and cold friction substituted.

Cases complicated with pleurisy, pneumonia, or tuberculosis, of course, cannot

take the bath and for them the cold friction should be used when the temperature runs up too much.

Children under seven years of age should not take the Brand bath but the tepid bath, cooling pack or cold friction should be used instead.

Old age is also a contraindication, keeping in mind that a person is always as old as his arteries, that old age is not determined by years in this connection but by the condition of the blood vessels. For such cases the prolonged tepid bath may be used or the wet sheet pack, the rubbing wet sheet and cold water drinking.

With proper management these measures may afford as good results as those obtained from the use of the Brand bath and without the danger involved in the use of this vigorous procedure.

Operation for Perforation in Typhoid

Martin, in the University Medical Magazine for June, reports an operation during the third week of typhoid thirty-two hours after perforation.

The opening was found with much difficulty, as the bowels were matted together with exudate, it was turned in and secured with a Lembert suture of fine cumol catgut. The abdominal cavity was full of stinking pus which was wiped out with gauze sponges and thoroughly flushed with normal saline solution and the two flanks were drained with glass tubes. Death took place sixteen hours after the operation.

In another case the perforation had existed for several days and the exudate limited by a plastic peritonitis so that the operation was simply cutting into a large abscess containing feces, pus and gas. The patient recovered with a fecal fistula.

Another case was moribund, the tympanitic abdomen was the only sign, his own diagnosis was ante-mortem tympany from intestinal paresis, but the attending physicians insisting that perforation was present he operated. The peritoneum was absolutely healthy. Patient died within an hour.

The last case mentioned was also operated on a mistaken diagnosis and he thinks that these cases may happen often enough to give the legitimate operation a serious set-back.

There are certainly cases in which a differential diagnosis is extremely difficult. In intestinal paresis there is likely to be an absence of pain, of fixed tenderness, and of the belly hardness which is a common accompaniment in peritoneal inflammation. Moreover, shock, and a falling temperature are not characteristic of this condition. When, however, a patient in the second or third week of typhoid fever complains of sharp, sudden, persistent, agonizing pain, of a great increase of tenderness; when this is accompanied by symptoms of marked constitutional depression, and it is followed by rapid and life-threatening tympany, if there is the slightest prospect of surviving operation, the abdomen should be opened at once.

Should the Appendix be Removed at the First Operation in all Cases of Appendicular Abscess?

The attempt to lay down a hard and fast rule in regard to surgical interference in cases of appendicitis is very questionable and the University Medical Magazine for June has a very able editorial on this question of removing the appendix at the first operation in all cases of appendicular abscess.

In cases of catarrhal inflammation of the appendix it is best to wait for the interval in which to operate, but when pus is detected by well marked signs the operation must be done *now*.

The operation will consist in such cases in giving free outlet to the pus and the careful protection of the healthy peritoneum by the gentlest manipulations of the sac. If the appendix can be found and removed without doing more than this, all is well, but if to find the appendix requires considerable handling of the sac and its adhesions and quite a good deal of the patient's strength and energy from prolonged anesthesia by all means let it alone.

The editorial in question very properly takes to task an author who advocates removing the appendix in all cases at the first operation. We know from experience that in the majority of such cases the appendix is immedialy involved in the destructive inflammation and consequently obliterated as the abscess heals.

In a few cases the appendix should be removed at the first operation, but in all cases it is infinitely better to have a live man with a deformed appendix than a dead patient whose appendix has been ever so beautifully removed.

The editorial position is backed up by such men as J. William White, McBurney, Bull Senn, Halsted and Richardson and without this it is so reasonable and appeals so strongly to common sense that it must stand.

The life of the patient is first, the removal of the appendix entirely subordinate.

Pseudo-Medical Sciences.

This is a modern age, but people are as old as the hills. They still buy gold-bricks, put $40 lightning-rods on $17.50 sheds, pay two prices for mean whisky under the name of stomach bitters or nerve tonics, take colored and flavored water as a blood purifier at $1.00 a bottle and do a thousand and one other things too numerous to mention and too absurd for reasonable consideration.

Bullard, in the Southern California Practitioner for July, republished in the Sanitarian for October, has a scholarly article on Christian Science, Divine Healing and Osteopathy. The latter he classes as the lowest of the three, inasmuch as it is only a scientific massage coupled with a smattering anatomical and physiological knowledge and as the Philadephia "Journal of Osteopathy" put it, "it solves the problem of financial support." So that their only reason for existence is a financial one.

Suggestive therapeutics, as used by these quacks and imposters, is of the utmost value in treating neuropaths. a fact well known to every legitimate physician and employed by them long before the term hypnotic suggestion was ever invented.

The central idea of "Christian Science" is the nothingness of everything, matter is an illusion, diseases are delusions.

The Divine healers are descended from Simon the imposter of Samaria. He was called "the great power of God," and yet thought to buy from Philip the Grace of God for money. "The talisman, that reveals the sincere believer in the power of "Divine Healing," from the itinerant peddler of supposed favors of the God he blasphemously represents, is the *contribution box*.

Dr. Bullard says that from his own personal knowledge osteopaths will attempt to treat any disease by massage, when we know that it is absolutely contraindicated in many cases of suppurative inflammation.

Osteopathic graduates have neither the instruction nor the ability to tell when their sole therapeutic measure should be or should not be employed.

The author concludes with the following pertinent questions.

Let us suppose here is your child with the cruel clutch of membranous croup—or laryngeal diphtheria—upon its throat. Statistics show that, until the advent of antitoxin, nine out of every ten attacked by this malady died. Now, with serum therapy and intubation in the hands of a competent physician and skilled surgeon, these figures are exactly reversed, nine out of every ten afflicted recover, and it is more than probable that the tenth case would recover if it could be seen early enough.

Would you allow the "Divine Healer," be he ever so sincere, to lift his impotent prayers to God to do a miracle what man is willing and ready to accomplish, while the innocent child (a victim alike of the disease and religious fanaticism) is slowly choking to death before your very eyes? All the prayers of Christendom would be as dust in the balance compared with the proper use of antitoxin.

Or, when facing that form of death which man in his wisdom has conquered, will you listen to the gibbering idiot who says disease is a delusion and all the laws of matter null and void?

Or, will you massage the muscles of the dying child "to obtain the correct adjustment of the bones and their attachments, thereby causing the parts to perform their functions in harmony, procuring an uninterrupted flow of all the fluids which pertain to life?" How rational it is to cause a more rapid flow of the blood tainted to death with a poison five thousand times as virile as the bite of a rattlesnake!

"Christian Science," "Divine Healing" and osteopathy, when face to face with death, are weighed in the balance and found wanting; to attempt to waste the precious moments when medical skill has an almost infallible remedy at hand is nothing short of manslaughter. And the cracked-brain devotees who would delude the people in such an extremity are verily guilty of murder.

Climatology and Sanitation.

Having experienced the cold Saturday of 1835 and the cold Monday of 1899, Hopkins, in the Atlanta Journal-Record of Medicine for October, writes *ex cathedra* of the influence of the atmosphere on organized beings. During the 120 days from November, 1898, to February, 1899, there were 62 days of precipitation.

He says that the last winter, while not a very cold one, was remarkable for the frequency of precipitation.

But there never has been a winter climate without a precedent.

By comparison he shows that the rainfall at Thomasville is much less than other places in the Southland.

Pure air, pure soil he considers necessary for health and in all cases both air and water are contaminated by impure soil.

Flowing artesian wells he considers safe, but if not flowing, no matter how deep the well becomes contaminated just as the ordinary well.

While the summers are long lasting from May to the middle of October, the nights are cool from the Gulf wind.

He recommends and endorses high altitudes for the consumptive except those where there is much destruction of lung tissue with weak heart. To such, high altitudes would be perilous if not fatal.

The infectiousness of consumption is very forcibly brought out in the history of the colored race before and since the war of 1860.

The good effect of classing consumption as a contagious and returnable disease is shown by the history of consumptives in England and in Italy.

Fractures of the Skull.

Fractures of the skull are divided into those of the vault and those of the base by Sherrill in the North Carolina Medical Journal for October 5.

At times they may extend from the vault to the base. The injury to the bony wall is not so important as the harm done the brain substance and intracranial vessels and as to whether it is simple or compound. He thinks it safe to say that a fracture of the skull is always complicated, and that no injury about the head is so insignificant as to be ignored, and none so severe but there is a chance for the patient's recovery.

Symptoms may be delayed for over 12 hours in even fatal cases. Symptoms may be due to laceration of the brain or from pressure of bony fragment or hemorrhage. When an important center is pressed upon symptoms come on at once, such as complete unconsciousness, slow stertorous respiration, full, slow pulse, warm, moist skin, pupils feebly reactive or not at all, dilated or contracted according to seat of pressure, temperature subnormal, paralysis, dripping urine and fecal incontinence. In such cases the diagnosis is certain and the condition serious.

The delay of symptoms from pressure of hemorrhage lessens the chances of benefit from an operation as oftentimes the brain fail to expand, so we should watch closely for the earliest symptoms.

Laceration of cerebral tissue, however slight, produces symptoms of syncope and shock, the graver the injury the greater the symptoms. Vomiting may or may not be a favorable sign. Hemorrhage from the nose is not infrequent and bleeding from the ear may occur without fracture.

Shave the scalp and examine under aseptic rules. If slightest suspicion of fracture, make an exploratory incision down to the bone. If fracture is found the skull must be opened and contents examined.

According the Wagner and Seydel the mortality following trephining is 1.23 per cent., while in cases expectantly treated the mortality is 33⅓ per cent.

The author concludes with the report of an interesting case successfully treated.

The Pathology of Fever.

In a continued article now running in the Atlanta Journal-Record of Medicine, Johnson is discussing the pathology of fever. He says in the September installment that primarily fever is the result of perverted vascular action through vitiation of the blood, morbid impressions upon the nerves or injury to the part which modifies the osmotic interchange and inhibits or disorders the metabolic functions of the cells, leaving in doubt the manner in which these local changes produce an elevation of the general temperature.

In dealing with the essential fevers the cause is bound up in the several characteristics of the specific micro-organisms.

In these fevers there exists in all the cells of the body a state known as cloudy swelling, resembling somewhat fatty infiltration or fat necrosis. This is caused by incomplete oxidation and if the oxidizing process continues sufficient to cause elevated temperature the process must take place outside the cells and independently of their chemico-vital agency.

After discussing changes in the blood and in the cells, together with the process of combustion, he concludes that while it is evident that fever or abnormal elevation of the temperature is the result of a chemical process, and that this chemical process consists in the transformation of energy into heat, or the liberation of latent heat or potential force, that does not presuppose the fact that it is altogether the result of oxidation after the usual manner of tissue combination. If that were true, and true by virtue only of the performance of the vital functions, and this was the only factor, then it would naturally follow that every part of the body—the cutaneous, as well as the internal—would participate in the performance of these functions which gave them alike a greater amount of heat and a higher temperature. Such being true, heat elimination would be commensurate with heat production, as regards the excess generated.

So, we must look beyond the changes in the blood and in the cells, and the process of combustion, as the sole factors in the pathology of fever.

Fever.

Johnson, in the Atlanta Journal-Record of Medicine for October, concludes his article on the pathology. The previous part of this paper is noticed under another abstract.

The relation is discussed in health and in disease. The diseased body has less kinetic energy than a body of equal weight in health, although the amount of heat in the body is markedly more in disease.

While the metamorphosis of fever is more active than in health, it is destructive rather than constructive.

No physiological process is possible or perfect without the consistent operation of three factors: the blood, the nerves, the cells. So the nervous system must play an important role in the pathology of fever.

The influence of the vasomator nerves is discussed. The action of ergot, whisky and morphine on the temperature is mentioned.

Strychnine is said to slightly elevate the temperature.

He states that of the 3,312 large colories generated daily only about one-fifth is used as kinetic energy.

He quotes Stewart's table of elimination:

Skin,	2,050	colories.
Lungs,	470	"
Excreta,	70	"
Total,	2590	"

To sum up, he concludes that the human body is a complex whole, composed of independent physiological units, each of which embodies the general and specific properties of the elementary matter of which it is formed, and by virtue of which it has function and relation.

In the maintenance of this relation and accomplishment of this function, there is a constant change of state which defines the metabolism of the cells, and from which evolves the heat that determines the body form and temperature, by its latent, specific and potential capacity.

The balance of the vital economy is preserved by the introduction, digestion and appropriation of proximate principles as food, with caloric sufficient to supply the force expended in metabolic action, and by the elimination of products rendered effete by this process.

The factors engaged in the performance of all physiological action, and, hence governing the production and disposition of heat, viz.: the cells, the blood and nervous system, are mutually dependent. So, any cause of abnormal temperature, or fever, must operate through one or all of these factors, and, primarily, or secondarily, each must participate in the morbid process.

The character of the blood, the condition of the cells, and the action of the nervous system are not only insufficient to explain the phenomena of fever as a physiological product, but are opposed to its production after the usual manner of thermogenesis.

The sum of evidence favors and supports the conclusion that the relation of the chemical and physiological forces, in their action and reaction as physiological agents, is disturbed by the general conditions directly induced by the exciting cause, in consequence of which osmotic interchange is inhibited, anabolism is diminished, physiological becomes subservient to chemical action, and physical energy, losing thus its exercise, is reconverted into heat, which retards, to the extent of its mechanical equivalent, the secretory, excretory, and other functions of the body. The amount of body heat increases, the temperature rises and remains above the normal.

Fever, then, is not an entity, not a disease, but a part and product of a morbid process—the physiology of inconsistent thermogenic and thermotaxic action, *the symbol of perverted function*, as delirium is of disordered intellection, or convulsions of incoordinate muscular contraction.

Penetrating Wounds of the Chest.

An intelligent, bold and persistent treatment of such conditions is advocated by Murfree in Medicine for October.

Such injuries are usually serious from the importance of structures involved, the danger is imminent if the heart or large vessels are injured; grave if the lungs are hurt and less serious if only the pleura and smaller blood vessels are damaged.

The sudden admission of air into the thoracic cavity may produce collapse of the lungs and suffocation. Empyema and emphysema, septicemia, pneumonitis, hernia, and fractured rib are complications,

The symptoms indicating penetration are locality of wound, escape of blood and air, ready passage of air to and fro with each respiratory act.

Bleeding may be into the bronchial tubes or into the pleura.

The shock is usually severe, depression with much anxiety and distress, dryness and irritation of the throat, constant desire to cough yet severe pain with any movement.

The general rules of surgery must be followed in the treatment, arrest hemorhage and relieve shock. The best of all hemostatics is the ligature if the bleeding cannot be reached compression may be used. Do

not hesitate to resect a rib or two if necessary to control secondary hemorrhage.

Perfect quiet, cold applications to the wound while the chest is tightly bandaged.

Internally for hemorrhage nothing of much ualue except opium.

For shock, stimulants, anodynes and external heat, the normal saline solution in extreme collapse. Do not stimulate too much or the reaction may be too great, causing the wound to bleed afresh.

The patient should be put to bed with the shoulders and chest slightly elevated and cautioned not to talk.

Liquid diet, morphine for pain.

The room well ventilated and thoroughly cleansed, as the patient should breathe pure air.

Cutaneous Manifestations and Intercurrent Phenomena of Syphilis.

It is sometimes hard to distinguish a syphilitic eruption of the skin from other eruptive diseases, says Martin, in the Medical Monograph for September, as it does not always correspond to the typical disease we have in mind. The blood may be charged with other poisons than that of syphilis which it is at the same time endeavoring to expel by cutaneous excretion.

The general appearance of a syphilide is modified by the intensity of the poison, the constitution and general condition of the patient, his environment, the stage of the disease and the treatment he has undergone.

Early eruptions are general in distribution, superficial, symmetrical, and rounded.

Later ones are apt to be irregular, crescentic or serpiginous. The ulcerating base is ashen gray, with infiltrated margins.

Syphilides possess three marked characterics; in every case except the erythematous form, they have a well defined round cell infiltration into the upper part of the corium; the infiltrating cells are incapable of higher development and so disappear by fatty degeneration and absorption or by ulceration; the spreading takes place from the central or oldest part.

That rashes appear in spots though the skin is full of the poison is explained by the law of immunity.

Constitutional symptoms must be looked after. The symptoms of syphilitic fever are mental depression, lassitude, neuralgia, quickened pulse, coated tongue, congested fances, irrgular bowels and a yellow, dirty skin.

With these come on the skin eruption. There are two principal forms, one simply congestive unattended by elevation of the skin, the other marked by the feature of elevation.

He does not think the different skin manifestations of syphilis important enough to base a classification upon.

Tubercular syphilide is most frequent from the second to the fourth year, though it may occur as late as ten or fifteen years after the appearance of the initial lesion.

The coppery color he does not consider pathognomonic of this or any other form of eruption, as it simply represents a chronic or declining stage of the eruption.

The gummatous is a striking illustration of the modification of syphilis by time. It may be single or multiple and is usually situated in the scalp, forehead, shoulders or anterior part of the tibia.

The Medical Department of the Seventh Army Corps in the Spanish-American War.

Fowler, in the Brooklyn Medical Journal for October, makes some interesting observations upon the organization and work of the Medical Department of the Seventh Army Corps in the late war with Spain.

This corps was first assembled at Jacksonville, and into it went our North Carolina regiment. The three division hospitals were first established in the suburbs, the personnel consisting of a Major and brigade surgeon as commanding officer, an executive officer or adjutant in one of the grades below that of Major, an acting assistant quartermaster and commissary, a medical officer in charge of each ward, hospital stewards in charge of the pharmacy and the different branches of the executive and hospital corps privates.

A strong effort was made to secure male trained nurses, but on account of the small pay only a few worth anything could be procured.

On the appearance of typhoid fever trained nurses were indispensable, so a force of women were sent and while there were a few incompetent and undesirable the majority were invaluable and as loyal as any soldier in the field.

The arrangement of the wards of the division hospitals was that of radiating lines from a circular space in the center, like the spokes of a wheel. A figure representing a half wheel, the central space being the hub, resulted. This was placed in a square area, the sides of which latter were occupied by the officers' quarters, the hospital corps men, the quarters of the female nurses, and the mess-tents, each having a

side of the square. The sinks were remotely placed.

He does not consider this a good arrangement, as the hospital took up too much space, being inconvenient to visit all portions and requiring a large force to properly police it.

In regard to the causes of the typhoid fever epidemic, he mentions the fact that the disease is endemic on the American continent throughout the year; that the infections has its habitat within the body and so the so-called "walking" or ambulatory type affords ample opportunity for the spread of the disease.

Failure to disinfect the excreta, the susceptible age of enlistment, the conditions of military life make an epidemic rather to be expected. Further than this, the troops were congregated in a tropical clime, and the prevalence of swarms of flies passing from the common sinks to the mess-tents and pavilions.

Of the three divisions at Jacksonville, the First used the latrine and water-flush system, the Second, the method of carrying away the fecal matter in covered half-barrels, while the Third used common sinks. In a general way it may be stated that the first-named proved the best from every standpoint, while, as might have been expected, the second proved the least satisfactory, and the most dangerous to the health of the troops.

Upon the transfer of the corps to Savannah the author was appointed consulting surgeon and chief of the operating staff, as a large number of surgical conditions had developed chiefly hernia and very large axillary and inguinal lymphatic glands.

A large number of the latter cases were said not to be of venereal origin.

The hernia were all inguinal and of recent origin. The majority of the patients had never worn a truss. Opportunity was thus frequently afforded for the study, in the course of the dissection, of the anatomical conditions present in cases of inguinal hernia uninfluenced by frequent manual reduction and truss-pressure. It was found, as a result of these observations, that the form known as infantile hernia, in which the pouch of peritoneum formed by the descent of the testicle, becomes obliterated at the internal ring but remains patent throughout the rest of its extent, the sac being formed by pressure upon the septum and descending behind the tunica vaginalis, and that known as encysted hernia, in which the septum is forced into the cavity of the tunica vaginalis itself, largely predominated.

Some insight into the sanitary condition of Havana. He states that the plumbing is of the most indifferent grade, and the closets "a mockery,a delusion and a snare." Most of the private houses have privy-vaults of enormous capacity dug beneath the kitchen floors. These are lined with stone, in order, as expressed to me by a prominent citizen, that "the liquid material might find its way out in the surrounding earth, thus doing away with the necessity of frequently emptying the vault."

The same gentlemen told him that the vault in his own house only required emptying once in fifteen years!

Syphilis in the Negro.

A case of syphilis with cutaneous manifestations in a pure-blooded negro is reported by Robbins in the Maryland Medical Journal for Oct. 7.

The man was an old soldidr, having served in both the Confederate and Union armies. He attributed his skin trouble to an explosion in a powder mine but Dr.Robbins thinks it was a dalliance with Venus rather than an encounter with Mars that led to his acquaintance with Mercury. The patient was stripped disclosing polymorphous syphiloderms, macules, papules, scaling patches and pustules may be found side by side or on different parts of the body. The squamous variety of syphiloderm was well marked about the elbows, the buttocks and lower extremities.

The tubercular form was also found.

Chronic congestion of the pharynx,a mucous patch, and engorgement of the lymphatic glands were also found. Mucous patches, he states, are among the first and latest manifestations of syphilis.

His preferred treatment was inunction in connection with the iodide internally, or even better than the inunction the mercurial vapor bath owing to circumstances he was put upon the usual tertiary mixed treatment.

The patient died several months later of cerebral syphilis.

Sexual Symptoms in the Male.

In the Medical Record for September 30, Cabot discusses the neglect of sexual symptoms in the treatment of the male genito-urinary organs.

He mentions three causes that suppress and belittle the disturbances of the sexual system. First, from childhood to puberty the majority of children are taught absolutely nothing about sexual hygiene. Second, practically nothing is taught in our medical schools on the sexual function and its relation to health and disease. Third,

the fact that the sexual instinct is associated with the most sacred relations of life.

The carelessness of the physician in treating these cases is responsible for the quack specialist. These cases constitute a large body of patients which should be treated by the legitimate profession instead of being buffetted about from pillar to post.

He realizes that these are difficult cases to manage but with study and careful treatment we may do much for them.

He agrees with Fuller that the seminal vesicles are responsible for many of the diseases of the sexual organs.

The Janet method of irrigation he thinks has done much damage as the method should only be used in a small number of selected cases.

Two cases are reported in which stripping of the vesicles with other appropriate treatment was followed by the best results.

He then concludes that sexual symptoms in genito-urinary practice should be carefully investigated and thoroughly studied.

Indiscriminate use of irrigation is distinctly against scientific teaching, its effect on the genital organs often being injurious and causing the spread of the gonococcus.

Before urethral instrumentation is employed every case should be examined per rectum with a finger educated to the rectal touch.

Various forms of remote nervous symptoms are directly traceable to disorders of the sexual organs.

The Widal Reaction in Tuberculosis.

The relationship of typhoid and consumption in certain respects is shown by S. H. Von Ruck, in the Journal of Tuberculosis for October, in which he reports the results of a series of experiments made at the Winyah Sanitorium. Some sixty tests were made divided into four classes: (1) Blood from well marked cases of typhoid; (2) blood from those who never had typhoid or tuberculosis; (3) blood from tuberculous patients who had never had typhoid fever; (4) blood of those suffering from consumption with a previous history of typhoid. In the first class a typical reaction took place in fifteen minutes, in the second class no reaction in an hour's time, in the third class agglutination was apparent in fifteen minutes and the reactions were complete in the hour, in class four a modified reaction was obtained.

Inasmuch as with the blood of tubercular patients who had never had typhoid fever a modified reaction was obtained; and, as no reaction occurred with the blood of individuals free from tubercular affection and with no previous history of typhoid; it may not be unreasonable to presume that such change takes place in the blood of the former not occurring in that of the latter, which in a manner exerts a certain degree of a protective influence against infection with the Eberth bacillus.

A true Widal reaction is not to be obtained with the blood of tubercular patients; but what may be termed a modified reaction does occur quite uniformly, the difference being one of time and degree only.

The modified reaction seen with the blood of persons suffering from tuberculosis in no way detracts from the value of the Widal reaction as applied in typhoid fever. However, the results shown should, in the use of this diagnostic means for typhoid, lead those to be cautious who are not familiar with what constitutes a true Widal reaction.

It has been demonstrated that a modified reaction takes place with the blood of tubercular subjects; and the difference between this reaction and that obtained in typhoid fever have been pointed out. Again, it has been shown how very differently the blood of those affected with tuberculosis behaves (when brought in contact with the germ containing fluid of a young Eberth culture), as compared with that of the healthy individual. Certainly each has its own characteristics which are not difficult to distinguish, if one observes at all carefully. In the case of the young woman which has been described, the diagnosis of probably tuberculosis, made by means of the Widal reaction, was subsequently confirmed by the physical signs of eruption of tubercle in the lung; and by the finding of Koch's bacilli in the sputum. This case in itself affords, evidence that the Widal reaction can and may be used for diagnostic purposes in tuberculosis. At least to obtain such a modified reaction when our history of previous typhoid existed, might lead to a suspicion of tuberculosis, if to nothing more.

Summer Diarrhea in Infants.

The chief factors in the production of summer diarrheas of infants, according to Bovaird, in the Therapeutic Gazette for September 15, are improper food, increased heat, foul air and like unhygienic conditions.

On autopsy we regularly find a simple catarrhal inflammation of the mucous membrane, the lower part of the ileum and the colon being the parts most affected, though we rarely see any lesion more severe than a necrosis and exfoliation of the superficial epithelium of the mucous membrane. Ad-

ded to this we have the presence of great numbers of bacteria of many kinds together with the toxins produced by their growth.

As prophylaxis he says the food of children under two years must be milk alone, at least during the summer months. This milk should be sterilized by boiling or Pasteurization, he prefers the latter, and should be given in moderation during the danger season.

Send the children to the country in the summer whenever possible.

For treatment he advocates "bold starvation," nothing but water for twelve, twenty-four or even forty-eight hours.

When feeding is started again use rice or barley water or whey. The danger in the early days is feeding too much. Later very dilute milk in small quantities. The strength or the food may be increased gradually as improvement advances.

If return of fever or diarrhea drop the milk or further dilute. As for drugs, calomel 1-10 gr. every hour for eight or ten doses, alcohol in marked prostration, bismuth ten grains every two hours.

Other treatment, irrigation of the colon two or three times daily so long as the fever continues, sponge or tub baths if the temperature is very high.

To sum up, he considers that we are dealing with an acute inflammation of the gastrointestinal tract, accompanied by more or less systemic infection produced by the presence and activity of bacteria. We aim to treat the inflammation by rest. Rest is secured by first withholding food, washing the stomach, empting the small intestine by medication, and irrigating the colon. Then for a time we give foods that will leave little or no residue, and only very gradually and carefully return to the use of milk. Further, we endeavor to limit the action of bacteria in the intestine by the internal administration of bismuth and the systematic use of irrigation of the colon. Finally, we counteract the systemic infection by the use of cold baths and the administration of alcohol.

Recognizing the influence of high temperature and foul air in the production and maintenance of these summer diarrheas, certain of our charitable organizations have sought to give relief to the little patients by providing hospital boats on which they may be carried from the heated air of the city to cool breezes of the sea, while at the same time they receive the attentions of skilled physicians and nurses. Lately seaside hospitals have been added for the reception and care of the more desperate cases. The results thus far have been most gratifying and serve to indicate still more emphatically the need of improvement in the surroundings of the poor at home.

End to End Anastomosis of the Ureter.

Allen and Briggs, in the Boston Medical and Surgical Journal for October 5th, report a case of horseshoe kidney in which an end-to-end suture was made after division of one of the ureters.

The result was successful in the end, though there was some little leakage shortly after the operation.

A new method was used to prevent the infection of the abdominal cavity from a possible leakage by turning down an apron of peritoneum from the anterior pelvic wall and uniting it to the pelvic brim. By this means the abdominal cavity was entirely closed off from the pelvis.

Of course, in a case of this sort it is impossible to demonstrate absolutely the success of an end-to-end anastomosis of a divided ureter. It might be said that the patient had but one pelvis to the kidney and all of the urine passed by the undivided ureter. It might further be said that the calibre of the ureter had been closed by cicatrization, and that a portron of the kidney which it drained had become atrophied, its function being taken up by that portion of the kidney drained by the right ureter. An attempt was made during the progress of the case to see whether on the days in which there was leakage of urine *per vaginam* the amount passed by bladder was less, and also whether on days when there was no leakage *per vaginam* the amount passed by bladder was greater.

However, he could not satisfy himself on this point and considers it a successful end-to-end anastomosis of the ureter.

Malaria as a Cause of Infantile Paralysis.

Five very interesting cases are reported by McFadden, in the Dietetic and Hygienic Gazette for October, in which malaria stands in a causal relation to paralysis.

The ages ranged from one to seven years.

He refers to an epidemic in Patterson, N. J., in which the cases were characterized not by a remittent, but by simple intermittent fever, chill or cold sweat, then a temperature of 102 to 104½; tongue dry and coated; constipation; after third or fourth chill on the fifth day, noticed dropping of mouth, and then inability to stand. Children complained of pain in heels, and located it; difficulty in swallowing; strabismus, pupils unequal; some regurgitation of food, then dropping shoulder of affected

side; partial loss of sensation. In two cases there was inability to articulate in one case, for at least ten days; another one for four or five days.

His treatment in these cases was the exhibition of cinchona sulphate, quinin, belladonna, ergot,arsenic, strychnia, and iodid of soda, according to indications; also, the employment of diet.

It is well to note, in closing, that one of the cases died of Bright's disease several months after she was apparently well. This result certainly shows that the child had been tremendously poisoned to have had after an apparent cure, this acute fatty degeneration of the kidneys.

Furthermore, as we are likely to have more of these cases, it is well for us to look for clinical evidence of fatty degeneration, as evidenced by the stigmata of albumen, casts, amyloid and fatty epithelia in the urine, and also the free subdermal oil in blood specimen and of fatty globules in the white blood corpuscles.

Electricity as a Therapeutic Resource for the General Practitioner.

A working knowledge of the principles of electricity is a *sine qua non* of a successful practice, says Herdman in the Kansas City Medical Index-Lancet for October.

He considers electricity a very tractable form of energy, transportable and readily localized, capable of being transformed into other forms of energy such as chemism, light, heat, mechanical movement and physiological action.

In the form of the *direct current, or galvanism*, it is helpful in aiding assimilation, in improving nutrition, in promoting excretion, in allaying pain, in arousing function of glandular tissue, in exciting muscular contraction, in removing abnormal growths and deposits, in destroping bacteria, and in arresting or inducing hemorrhage, according to the polarity employed. As a means of diagnosis in determining the condition of diseased nerves and muscles, it has no substitute, and is indispensable.

In the form of the *induced current*, whether obtained from the magneto-electric device, the faradic coil, the sinusodial apparatus or the alternating dynamo, its capacity for inducing muscular contraction and stimulating nerve action, as well as increasing the nutritive activities of all living protoplasm, renders it the most effective agent the physician can employ with which to arouse the physiological forces when they are feeble or sluggish, especially when this state is due to a lack of tonicity in the nerve-muscle apparatus.

In the form of *high tension, high frequency* currents, such as are obtained from the Tesla coil or the static machine, electricity seems best adapted for correcting the disorders due to faulty metabolism. In this form it acts directly upon the nutritive changes in the cell protoplasm and apparently without the intervention of nerve or muscular action. Under the influence of such currents the organism consumes more oxygen, the circulation is quickened, a larger per cent of carbon dioxide and urea is excreted, and growth is increased. Electric currents of this nature have been found especially serviceable in correcting the defective metabolism present in such diseases as gout, rheumatism, diabetes and neurasthenia, and the myriad discomforts which attend these conditions are allayed.

Electric cauteries are far superior to the thermo-cautery in convenience and range of adaptation. and an electric thermal pad for maintaining artificial heat about the body is a vast improvement on the hot water bottle.

All accessible cavities of the body are now explored by means of the electric lamp, and the accuracy of diagnosis and the success in treatment has been very much advanced thereby.

Old Dislocations of the Lower Jaw.

A new method of reducing old dislocations of the lower jaw is described by McGraw in the Medical Record for October 7th. In his own words it is as follows:

"I provided myself with a strong steel hook; it was made especially for the purpose, with a short prong bent in such a way as to run parallel to and near to the shaft. The space between the prong of the hook and its shaft was just wide enough to permit the hook to pass over the jaw at the sigmoid fossa. I purposed making incisions under each zygoma, separating the fibres of the masseter, passing the hook through in front of the condyle on each side and over the bone at the sigmoid notch, and then pulling downward and backward until the condyle was disengaged and slipped into place. In carrying out this plan, I made first a T-shaped incision below the right zygomatic arch. I found it easy then to pass the hook through the masseter by separating but not dividing its fibres, and to fasten it over the bone in front of the condyle. Pieces of cork were inserted between the molars as far back as possible, and an assistant was directed to pull the chain forward and up-

ward with all of his force, while I myself made traction on the hook. This was continued over fifteen minutes before I could feel the jaw yield to the strain."

"It was rendered more movable, but could not as yet be replaced in its normal position. I now make a straight and short cut under the left zygoma and succeeded in passing the hook as before. Repeating on the left side the efforts I had made before on the right, I had soon the satisfaction of feeling the bone slip into place. The chin fell back to its proper position; the teeth were brought together, and motion was restored. The jaw was keep bandaged for two weeks, and all motion forbidden. The patient took nourishment in fluid form without opening the mouth. It was interesting to note how after a few days the jaw seemed to settle more and more into its normal relations. Directly after the operation there remained a slight projection of the teeth and an abnormal fulness over the joints. This gradually disappeared, and the man left the hospital with the form and function of the jaw perfectly restored. The operation was followed by some inflammation and suppuration, which, however, soon subsided. and his recovery was perfect."

This plan was only undertaken after protracted effort to replace the jaw by all other methods without result.

He considers his incisions unnecessarily long and believes that the operation can be done through so small an opening as to be practically subcutaneous.

Cardio-Esophageal Gush and Click.

Under this name, Curtin, in the Medical News for September 9th, describes two new sounds which he has heard in and around the heart. He says that they are extra-pericordial as in the cases coming to autopsy only slight hypertrophy was found and he thinks they are esophageal as they seem to come from the fauces, closing the mouth muffles the sound and on auscultation it was heard down to the middle of the sternum and not below that point.

The short, sharp, clicking sound is generally heard at the end of expiration and seems to come from the fauces. It is not constant, being present to-day and gone to-morrow, and is evidently caused by the separation of two moist surfaces, It keeps time with the heart's action and in this way may be differentiated from the faucial clicking sound heard in each round of respiration in subjects with old pulmonary cavities, especially when near the apices. The principal features were that the sounds were heard at the beginning of the systole of the heart and, in two cases, diagnosticated as an endocardial murmur.

The sounds of both were modified by respiration, being heard most markedly at the end of expiration.

They were all more or less evanescent, except one case.

They were increased or developed by a full stomach, stimulants or excitement.

The sounds were increased by opening the mouth, and dulled by closing it.

They were heard by auscultation at the middle of the sternum, but very much subdued as compared with the sound heard at the open mouth.

The sound was not transmitted in any direction from mid-sternum.

They were not heard by auscultation over the stomach.

Complete Tears of the Rectovaginal Septum.

Kelly, in the Medical News for September 9th, describes a new method of treating complete tear of the rectovaginal septum by turning down an apron into the rectum and by buried suture through the sphincter muscle. The plan of turning down the flap towards the bowel was originated by Warren of Boston, but Kelly adds the buried suture and also figure-of-eight suture to do away with the dead central space.

The method for performing the operation is as follows:

The area to be denuded is outlined by making the basal incision across the septum on the vaginal side in advance of the sphincter ends, and at least 1 cm. in advance of the margin of the rectal mucosa. The denudation then extends up into both vaginal sulci in the usual manner. The important point in which the operation differs from the ordinary Emmet procedure, generally employed, lies in the treatment of the undenuded portion between the basal line and the rectum. Instead of cutting this off in strips, it is dissected loose from above downward and turned down toward the rectum like an apron. The purpose of this fold or apron is to protect the broad wounded surface in the septum from any contamination on the side of the bowel, which it does in the following manner: As soon as the stitches are passed which bring the septum together from side to side, the apron of tissue is also folded loosely together and turned down toward and sometimes projecting entirely from the anal orifice. This at once protects the septum from infection, as every movement of the bowels only tends to push this curtain down and out, and no longer tends to force fecal matter up between the stitches. This natural tendency

of the apron to protect the septum is reinforced by a series of delicate sutures uniting the edges.

He sometimes leaves these sutures long and fastens them outside so as to hold the margins of the wound out on the surface of the body, doing away with any wound on the rectal surface and thus robbing the operation of its only serious complication. The ends of the spincter are dissected free and the internal sutured by a series of figure-of-eight sutures extending well up into the septum and obliterating entirely the dangerous dead central space.

Three or four of these figure-of-eight sutures applied in this way take the place of three times the number of interrupted sutures as formerly applied on the side of the rectum.

After closing the central portion of the septum by the figure-of-eight sutures, the sphincter ends are united by three interrupted catgut sutures. Next apply the sutures to the sulci, then to the perineal surface, using one or two silkworm-gut sutures for splinting purposes. Then, finally, unite the edges of the apron seen projecting from the anal orifice by some very fine silk or catgut sutures.

The advantages of this operation are, first, that it secures immediate good sphincter control, and, second, that it removes from the operation the complication occasioned by the wound on the rectal surface.

The Treatment of Insomnia.

The treatment of insomnia is divided into physiological and medical by Shoemaker in the Medical Bulletin for September. In a general way he considers the drug treatment bad, as it is apt to induce the habit, it disorders the digestive functions, it is followed by languor, modifies the composition of the blood, depress the circulation or exerts a toxic influence upon the nerve elements.

The form of insomnia discussed is not that of infectious diseases or of organic visceral disorders but that kind usually found in nervous people who have led a strenuous life. Among physiological remedies he mentions physical exercises in the open air, sea voyage, travel by rail, carriage ride across a state, "the outside of a horse is good for the inside of a man." Massage, electricity with the negative pole at the back of the head and the positive with a sponge attached moved across the forehead, warm bath, diet, alcohol in few cases, entertainments, and hypnotism are mentioned as remedies of the same class. In regard to alcohol he says that we should be as careful in prescribing a glass of beer as a dose of hyoscamine or any other powerful drug. The drink habit is more easily acquired than the drug habit and is generally more pernicious.

For the medical treatment he mentions opium as the oldest and best within its proper sphere, that is where there is pain, restlessness and excitability of the nervous system.

Chloral, a typical hypnotic remedy, peraldehyde as all important, the bromides as comparatively harmless, belladonna if the insomnia is complicated by neuralgia, hyoscyamus and its alkaloids peculiarly appropriate in the insomnia of lunacy.

Cannabis indica, sulphonal, trional are also recommended in suitable cases. He thinks trional as efficient as sulphonal and less injurious. The coal-tar products have such decided disadvantages they should not be used.

In conclusion, whenever it is necessary to combat sleeplessness with drugs, he gives the preference to those older remedies which have long been official and the defects as well as the virtues of which have been so thoroughly studied that we may feel more assurance in their use. He recognizes the fact that every powerful drug is capable of doing harm if not judiciously employed, The older remedies, however, exert a less deleterious influence on the composition of the blood and are comparatively free from those disastrous consequences which detract from the effect, sometimes so brilliant, of the more recently introduced drugs, above all, of the coal-tar products. In the cases with which we have to deal, *festina lente*—make haste slowly—is a good motto when haste is danger and caution is safety.

Pyonephrosis Complicating Gonorrhea.

Cumston reports a case of pyonephrosis following an acute attack of gonorrhea. (University Medical Magazine for June.) It was the second attack of specific urethritis the patient had had within a year.

About two weeks after the kidney symptoms developed, a tumor was found on palpation. An exploratory incision was made in the lumbar region and the transverse fascia incised. The kidney appeared in the wound and an aspirating needle drew off 950 c.c. of dirty yellow pus. An incision 6 cm long was made in the kidney and 300 c.c. of pus was evacuated. The borders of the kidney incision was stitched to the wound and a large drainage was used.

Temperature which was 103.4 at time of operation gradually fell to normal; the drainage tube was removed on the ninth day.

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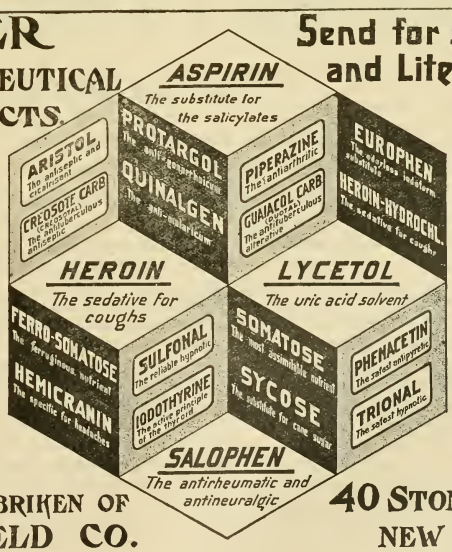

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Ununited Fracture in Childhood.

The comparative frequency of non-union after fracture of the tibia and fibula in children is discussed by Owen in the Medical Mirror for September.

Other bones of the body are rarely so affected, though he mentions a case with ununited fracture of the clavicle, but the defect was not a very serious one.

The two great differences between ununited fracture in the child and in the adult are these, that in the child the false joint is generally in the leg and the operative treatment is almost invariably futile.

After mentioning the several theories in regard to it, he thinks it some subtle disturbance of the anterior cornua of the grey crescent of the cord inhibiting the due nutrition of the bone, thus rendering it weak and friable, interfering with repair and eventually frustrating the best endeavors of the operating surgeon. The condition is thus allied to the molecular disturbance of the crescent which entails infantile paralysis, but expends its influence upon bone rather than muscle.

In every case operated on he noticed an atrophic condition of the lower fragment of tibia, otherwise the child is well enough developed.

Paroxysmal Tachycardia.

In dealing with a rapidly beating heart we must know whether it is a functionally disordered organ or whether the organ itself is diseased, says Carson in the Louisville Monthly Journal of Medicine and Surgery for September.

We must of course take into account individual variations in the heart-beat. He says that in his experience slow heart—bradycardia—is more frequent than the rapid heart.

Several cases of tachycardia are reported, the first being immediately relieved by strychnine and morphine Hypodermically. One case was evidently due to hysteria and anemia, morphia and nitroglycerine relieved the immediate symptoms. A case in a child, eight years old, is reported due to intestinal irritation following constipation, treated with calomel and castor oil.

Some authors lay great stress upon an excessive use of tea, coffee, tobacco—especially cigarette smoking—as a cause. Others think it a neurosis, and only excited into action by emotions, indigestions, fevers, etc. In a few cases it has been caused by masturbation. At times it follows upon acute fevers, such as typhoid. The pulse usually is not only rapid—120 to 130—but is irregular, both in force and rythm. The apex impulse is felt over an increased area; sometimes there is cyanosis, with cold hands and feet and general perspiration. The frequency of the attacks depends upon the cause, and their duration varies from a few minutes to several hours. During the attacks bromides, valerian, and such antispasmodics are to be exhibited. The curative treatment should be directed to the removal of the cause. During intervals no treatment of the heart is necessary.

The Vaginal Route in Pelvic Surgery.

The conditions under which we are to select the vaginal route in preference to abdominal section are discussed by Sprecht in the Annals of Gynecology and Pediatry for September.

He does not consider Henrotin's rule a safe one unless the operator be an expert. This rule is that "the patient who is suffering from an acute recent infection in its earliest stages, is treated by making a semicircular incision posterior to the cervix, opening the peritoneum, after which the finger is introduced into the pelvis, and used in all further manipulations. With the finger the adherent inflammatory mass is reached, punctured and explored."

He thinks the vaginal route better for hysterectomy for prolapse in middle age where there is much abdominal fat and for cancer in the early stages.

He prefers the vaginal route in many pelvic adhesions if they are low down, in ruptured extra-uterine pregnancy in the early stage except where the hemorrhage is very severe, in pelvic infections when the pus accumulation is low down and in abnormal Graafian follicle or corpus luteum cysts.

Treatment of Cancer of the Uterus.

Bovel in the National Medical Review for October advocates abdominal hysterectomy as the proper treatment for cancer of the uterus in the early stages. Vaginal hysterectomy he recommends for very early cases of cancer of the cervix in which the general condition of the patient would seem to be able to stand it better than the abdominal operation and in those in which prolapsus is extreme. In other cases he does the broad abdominal extirpation of the pelvic structures as described by Werder which consists of extirpation of the uterus, broad, round and utero-sacral ligaments and nearly all of the vagina.

He considers this the best operation yet devised for the eradication of cancer of the uterus.

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The Primary Lesions of Syphilis and Their Relation to Systemic Infections.

McVey, in Medical Monograph for September, considers syphilis a local disease at first, but in a short while the poison is taken up by the lymphatics and later the blood vessels carry it to all parts of the system. The primary lesion is the chancre which may be difficult to diagnose in some cases. A soft chancre that has been cauterized may present an indurated base, The true chancre usually makes its appearance as a papule, a very insignificant sore and may be painless. Chancre of the tonsil may be overlooked until the enlarged glands cause suspicion.

He does not agree with Finger, but thinks germs escape from the primary lesion and not ptomaines. Ptomaines may produce tertiary or querternary symptoms when the iodide of potassium becomes the great eliminator.

The primary lesion does not amount to much locally, healing without even leaving a scar in many cases.

The duration of the chancre indicates the resistance of the tissues.

According to Sigmond 40 per cent. have very little more than the local lesion, while in the susceptible, strumous, weakly, cachetic or the aged it may exhibit all the features of malignancy.

Locally the chancres should not be cauterized, but treated with some unirritating substance as bismuth. Use tonics, mouth wash of chlorate of potassium to harden the gums. Mercury the mainstay for the secondary stage.

The Morphine Treatment of Tapeworm.

Kime, in Medicine for September, gives a plan for bringing away the worm entire.

He reports two cases treated successfully. The method is only applicable, of course, when part of the worm protrudes, and is as follows:

A string is tied around the worm about three inches from the patient and one-half grain of morphia injected above the string directly into the body of the pest. The protruding part is then severed just below the ligature and returned to the bowel for about ten minutes. A large injection of water will then bring away the worm entire.

His explanation is that most tapeworms have a pair of longitudinal vessels passing from one extremity to the other through all the segments, and toxic substances injected into the body are taken up by them, thus reaching every portion of the parasite.

Plastic Surgery.

The value of plastic methods in surgery is discussed by MacCormac in a continued article now running in Treatment.

In the issue for September 28th he reports a case in which several plastic operations were done upon the arm for extensive deformity and loss of function, the result of a burn. The man was 33 years old, received the burn when only seven years old. When admitted for treatment the elbow could not be extended beyond a right angle; there was only slight motion at the shoulder joint, and the thumb could not be opposed to the fingers.

His method is to raise a skin flap, leaving both ends attached until it becomes thick and vascular and then transpose.

After four operations the man could use his arm to his complete satisfaction.

Another case is reported in which he transplanted vascular flaps into an extensive cicatrix, the result of a burn of thigh and abdomen by the same method.

The result was good, the patient's condition being eventually relieved by two operations, the limb being capable of complete extension, and though the old cicatrix is still somewhat tense, it has shown no tendency to give way or ulcerate, the limb can be freely used and the young woman follows her occupation of housemaid.

Gastric Carcinoma.

Feid, in the Cincinnati Lancet-Clinic for July 22d, reports a case of carcinoma of the pyloric end of the stomach. An operation was performed, but the condition of the patient was such, (temperature 97, pulse 140), that a pylorectomy or complete excision of the stomach was out of the question, so it was decided to make a duodenotomy. The ascending portion, being free from the growth, was stitched to the abdominal wall and the next day opened. A soft No. 3 catheter was introduced and fitted with a funnel.

He took through this daily two pints of milk, the juice from 3 pounds of beef, and from 3 to 6 raw eggs. In addition he had 2 to 3 pints of water daily. In 48 hours the temperature rose to normal and the pulse fell to 88. Digestion was normal.

The pain, intense thirst and distress after taking food were all entirely relieved.

As Dr. Feid says it is not *how long* the patient lives but *how he lives* that must be considered in advanced cases and oftentimes much may be promised in the way of relief though the case be in the last stages of the malignant process.

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Albuminuria as a Diagnostic Symptom.

The importance of the relation of albumin to the disease of the urinary organs makes its study absolutely necessary in the diagnosis of all nephritic troubles, says Ball in the Memphis Medical Monthly for September. While it is usually associated with other symptoms which would lead us to suspect at once the real trouble, still they are not always to be relied upon. He admits that there may be a physiologic or functional albuminuria, but its continued presence or its cyclic return associated with certain other symptoms should certainly arouse our suspicions of a grave lesion of the kidney itself or some other vital organ of the body. The entire absence of albumin and casts would be conclusive that the kidney was not the seat of any organic lesion, although there might be other symptoms to indicate its presence. He reports five cases, in four of which albumin was found in the urine, the last case had swelling of the feet and hands but the examination of the urine showed a negative result and recovery was complete.

Myelitis Following Influenza.

While influenza is a rather frequent cause of inflammatory diseases of the nervous system, it most frequently attacks the meninges, brain or peripheral nerves; the spinal cord being comparatively exempt, says Potts in the University Medical Magazine for October. He reports a case of myelitis following influenza in a man aged 52. The nervous symptoms came on about one week after developing influenza, and in two weeks he had paralysis of the left leg completely and partially of the right, incontinence of urine and feces. There was some improvement under treatment, but he had disappeared from observation.

This is the seventh case of this kind reported so far.

MISCELLANEOUS.

A Famous Expression.

Prof. Gibson, one of the pioneers in the development of scientific medical teaching in the United States, was asked, by one of his students at the University of Pennsylvania, how to obtain a comprehensive, accurate knowledge of medicine that would enable the physician to make a correct diagnosis, and execute proper treatment. Dr. Gibson's reply has become inseparably connected with his name and memory. It was "Principles, principles, principles." By this, of course, was meant that however varied were the manifestations of disease, they were to be comprehensively grasped only by a knowledge of the fundamental principles of physiology and therapeutics. The symptoms of disease, however manifold, could be intelligently interpreted only on this philosophic basis. Strictly consistent with this inexorable law is the fact that all conditions of depression and exhaustion of the system can be appropriately and effectively treated only by re-awakening the dormant and torpid nutritive functions. The crying need of the emaciated tissues and impaired vital functions is for food, the natural restorative. In most cases, however, there is not only an indisposition to take food, but the digestive organs are so enfeebled that they cannot digest and assimilate food—their functions are suspended.

The first indispensable step is to restore these functions. The ordinary tonics—iron, arsenic, strychnine, hypophosphites, etc.—fail entirely to accomplish this object. Cod liver oil is the heaviest burden on even the strongest digestive powers to prepare for assimilation: on the atonic stomach it is an irritant—it aggravates the existing trouble. The digestive organs must be gradually coaxed into a condition of restored functions; they need stomachic alteratives, tonics and stimulants.

The best of these, as proven by experience, is Gray's Glycerine Tonic Comp. It has a specific, selective action upon the atonic digestive organs; it not only enables them to digest food, but it invariably promotes assimilation, so that reconstruction of wasted tissues and nervous force is absolutely assured. For this reason Gray's Glycerine Tonic Comp. is the most rational, scientific and effective remedy in all conditions of malnutrition, anæmia and nervous exhaustion, occurring either independently as a consequence of organic disease, such as tuberculosis, Bright's disease, or as the result of acute infectious diseases.

H. F. Moore, M. D., of Denver, Colo., writes: "I prescribed Neurosine (Dios) in a case of persistent Insomnia, where Chloral, Bromides, Chloralmide, etc., failed and was much pleased with its immediate results." Neurosine does not contain Morphine, Chloral, Opium or other deleterious drugs.

According to the Medical News two cases of beri-beri have been reported at Biloxi, Miss. The disease has heretofore been practically unknown in that region.

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The Therapeutic Properties of Buffalo Lithia Water.*

Among alkaline waters the Buffalo Lithia Springs, of Mecklenburg County, Virginia, are very favorably known in this and other countries. The springs are designated as Nos. 1 and 2, and vary somewhat in their ingredients and proportions. These waters exercise an indisputable therapeutical influence far in excess of the amount of lithia and other saline constituents demonstrated as present by chemical analysis. The beneficial results which they produce can not be attributed either to the quantity of water or to the amount of the lithia, measured by grains.

Analysis shows that both springs contain sulphate of magnesium, alumina and lime, chloride of sodium and silica, with traces of phosphoric acid and iodine. Lime is present in spring No. 2 chiefly in the form of the sulphate, while in spring No. 1 the bicarbonate predominates. The No. 2 is richer in lithia than in the No. 1 spring. No. 2 also contains a considerable proportion of bicarbonate of potassium, while this salt is entirely absent in No. 1. Bicarbonate of barium, present in No. 2, is lacking in No. 1.

The water of spring No. 2 is a perfectly clear fluid, entirely destitute of any unpleasant or alkaline taste.

The peculiar virtues of the Buffalo lithia water appears to be owing to the mixture of salts which they contain, and as regards spring No. 2, to the proportionately large quantity of the bicarbonate of potassium. They are likewise due to the perfect solution in which the salts are held, and, consequently, to the complete absorption and assimilation which result. In the alembic of Nature more effective solutions are produced than the laboratory of the chemist can always prepare.

For the practical ends of therapeutics it suffices to know the properties of the agents which we employ. We are not always able to understand precisely how such properties are acquired. Abundant experience has shown that the Buffalo lithia water, by virtue of its lithia and the associated salts, is much more effective in some very important particulars than extemporaneous solutions. It exerts, for instance, a solvent action upon renal, hepatic, and vesical calculi more powerful than could be expected from a mere inspection of its chemical analysis. By sweeping uric acid rapidly out of the system it alleviates the miseries of gout. It is efficacious in rheumatism, Bright's disease, diabetes mellitus and a number of nervous affections. These defects of metabolism are all to be traced back to faulty digestion. In a paper devoted solely to clinical observation I shall not pause to inquire into the minutiæ of pathogenesis. We can, however, readily detect a vicious chain of relationship between the various maladies which I have mentioned. When we extend our view and contemplate the secondary ills and complications of rheumatism, gout, Bright's disease, and diabetes mellitus, we can more fully appreciate the virtues of a remedy which attacks the very root of the tree of morbid genealogy. "From generation to generation," indeed, its branches extend, and what is mild in the father may become severe in the son.

The Buffalo lithia water is doubly efficient in rheumatism and gout. It dissolves uric acid and phosphatic sediments as well as other products difficult of elimination, while at the same time it exerts a moderately stimulant effect upon the renal cells, and thereby facilitates the swift removal of insoluble materials from the body. Without such action insoluble substances will precipitate in the kidneys and bladder. The intense suffering produced by stone, together with consecutive pyelitis and cystitis, are avoided by prompt elimination.

Unquestionably, although the speedy removal of uric acid and other products of faulty tissue change is of conspicuous benefit, yet to prevent their formation is a service still more important. This service is performed by the Buffalo lithia water when it corrects those digestive failures which are responsible for the production of deleterious materials.

As stone is one of the most harmful and painful ultimate consequences of faulty digestion and assimilation, the solvent virtues of Buffalo lithia water constitute, perhaps, its highest merit. It has been instrumental in disintegrating large calculi of varying composition, as attested by clinical reports corroborated by chemical examination.

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*John V. Shoemaker, M. D., from the New York Medical Journal, of July 22, 1899.

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Literature on Application.

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Coleridge's Account of how the Opium-Habit was Acquired.

The following has been often quoted, but it cannot be too widely known (Archives of Surgery). It is an account in Coleridge's own words of how he was led into the fatal habit of using opium: "I wrote a few stanzas three-and-twenty years ago, soon after my eyes had been opened to the true nature of the habit into which I had been ignorantly deluded by the seeming magic effect of opium, in the sudden removal of a supposed rheumatic affection, attended with swelling in my knees, and palpitations of the heart, and pains all over me, by which I had been bed-ridden for nearly six months. Unhappily, among my neighbour's and landlord's books were a large parcel of medical reviews and magazines. I had always a fondness (a common case, but most mischievous turn with reading men who are at all dyspeptic) for dabbling in medical writings; and in one of these I met a case, which I fancied very like my own, in which a cure had been effected by the Kendal Black Drop. In an evil hour I procured it; it worked miracles —the swellings disappeared, the pains vanished; I was all alive, and all around me being as ignorant as myself, nothing could exceed my triumph. I talked of nothing else, prescribed the newly discovered panacea for all complaints, and carried a bottle about with me, not to lose any opportunity of administering 'instant relief and speedy cure' to all complainers simple or gentle. Need I say that my own apparent convalescence was of no long continuance; but, what then?—the remedy was at hand and infallible. Alas! it is with a bitter smile, a laugh of gall and bitterness, that I recall this period of unsuspected delusion, and how I first became aware of the Maelstrom, the fatal whirlpool, to which I was drawing, just when the current was already beyond my strength to stem. The state of my mind is truly portrayed in the following effusion, for God knows from that moment I was the victim of pain and terror, nor had I at any time taken the flattering poison as a stimulus, or any craving after preasurable sensations. I needed none; and, oh! with what unuterable sorrow did I read the 'Confessions of an Opium-eater,' in which the writer, with morbid vanity, makes the boast of what was my misfortune, for he had been faithfully and with a agony of zeal warned off the gulf, and yet wilfully struck into the current! Heaven be merciful to him!"

At another place Coleridge wrote: "I have never loved evil for its own sake; no! nor ever sought pleasure for its own sake, but only as a means of escaping from pains that coiled around my mental powers, as a serpent around the body and wings of an eagle! My sole sensuality was *not* to be in pain."

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The physician is frequently called upon to treat patients, who though not ill enough to be in bed are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed and in the morning they are more fatigued and ill at ease than was the case on retiring. Upon awaking there is frequently an aching sensation in the loins, sometimes in the lower limbs, which is noticed upon getting out of bed or in dressing, particularly in putting on their hose or in lacing their shoes. As the day progresses this soreness may partially wear off, but there is at all times a vague, underfined, uneasy, painful feeling.

A competent examination of the urine in these cases will in almost every instance be found to disclose a notable absence of the soluble urates. On the contrary, it may be loaded with the phosphates and very frequently bile will be present as also uric acid. If the conditions remains neglected, the probable results will be sooner or later a pronounced attack of rheumatism in one or another of its forms. All that is needed to induce such a condition is a sudden change in the weather or exposure on the part of the patient to cold or wet or a combination of the two. This is due to a latent rheumatic diathesis, to which every adult is liable.

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MED. A. B.

Relative Toxicity of Cocain and Eucain.

A. H. Peck, M. D., D. D. S., Professor of Materia Medica, Therapeutics and Special Pathology in Northwestern University Dental School, Chicago, in a paper entitled "Relative Toxicity of Cocain and Eucain," read before the Section of Stomatology at the 50th Annual Meeting of tne American Medical Association, Columbus, June, 1899, arrived at the following conclusions:

1. The action of cocain is inconstant; one never knows whether the symptoms occasioned by like quantities of the drug, in animals or individuals, under like circumstances, will be similar or dissimilar.

1. The action of Eucain is constant. The symptoms occasioned by the use of like quantities in animals under like circumstances, and so far as my experiments have gone, in different individuals also, are the same.

3. The first action of cocain on the heart is that of a depressant, and on the respiration that of a mild stimulant; the after-effects being, on the heart, that of a decided stimulant, and on the respiration, that of a decided depressant.

4, The first action of Eucain on both the heart and respiration is that of a stimulant, the after-effects being that of a decided depressant.

5. Cocain causes death in animals by paralyzing the muscles of the respiratory apparatus, the heart's action continuing in a feeble way for a brief period after breathing ceases.

6. Eucain causes death in animals by paralyzing the muscles of the heart and of the respiratory apparatus, they ceasing to operate simultaneously.

7. Eucain in toxic doses nearly always causes nausea, and occasionally vomiting.

8. Cocain is much less nauseating and scarcely ever causes vomiting.

9. Eucain is decidedly a diuretic, causing vesical discharge in a majority of instances in which a toxic dose is used.

10. Cocain is not a diuretic to any appreciable extent, vesical discharge having occurred in only one instance in connection with all of my experiments.

11. The pupils of the eyes, in nearly all cases of cocain poisoning, do not respond to light, and the eyeballs bulge more or less from their sockets.

12. The pupils of the eyes in most cases of Eucain poisoning do respond feebly to light, and the eyeballs rarely bulge from their sockets.

13. The action of the toxic doses of Eucain is more like that of a paralyzing, tetanoiding, convulsion-producing agent, than it is like an anæsthetizing one, the plantar and cremasteric reflexes nearly always remaining active.

14. Toxic doses of cocain causes general anæsthesia in connection with the other symptoms in the majority of cases.

15. True tetanus of all striped muscles of the limbs, and Cheyne-Stokes' breathing nearly always occur with the use of cocain; but either occurs seldom when Eucain is used.

16. Cocain is at least three times more toxic than Beta-Eucain, and Alpha-Eucain is as toxic as cocain.

17. Boiling does not destroy the efficacy of cocain, but it does modify it; and boiling in no degree lessens the efficacy of Eucain.

The above deductions have been made only after many experiments in connection with each individual point. I have observed many interesting features in connection with the relative worth of these drugs as local anæsthetics, but this paper is not meant to treat of this phase of the work. There is much experimental work yet to be done in this connection, the results of which I shall be pleased to present at some future meeting.

Hexamethylen-tetramine, first recommended by Nicolaier under the name of Urotropin as a genito-urinary disinfectant, has recently found very general application in gout and the uric acid diathesis. Aminoform, by which name this chemical is now known, gives most excellent results in doses of 15 grains three times daily. This is best given in a whole glass of cold water and before meals, the drug being virtually tasteless. Possibly the laxative effect which is noted is due largely to the diluent. It not only prevents the formation of tophi and like manifestations so multiform in character yet peculiar to the disease, but also favors the removal of the deposits already formed about the joints. It is, of course, invaluble as a germicide in the genito-urinary tract, producing astonishingly favorable results in most cases of cystitis. Its utter harmlessness withal is a feature by no means of minor importance. The drug may be taken continuously for months and in large doses without producing any untoward effects whatever.

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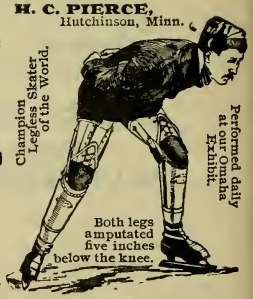
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The Charlotte Medical Journal.

Vol. XV. CHARLOTTE, N. C., NOVEMBER, 1899. No. 5.

Gastric Lavage.*

By Robert F. Williams, M.A., M.D.. Richmond, Va., Professor of Materia Medica and Therapeutics in the Medical College of Va.

In presentiug to the Society this paper upon a subject about which so much has been already written, I fear that it may seem as a twice told tale. But the fact that though growing, the practice of gastric lavage has not become universally adopted in suitable cases, must be my excuse for bringing it to your attention, together with a desire to add to existing testimony the increment of my personal experience in the use of the stomach tube as a remedial agent.

The indiscriminate use of lavage in the forms of gastric and intestinal disorders without proper differentiation is, of course, unjustifiable,but the restriction of the practice to old cases of chronic gastritis is, I consider, to be equally condemned as depriving other cases of the surest and speediest relief, which is always their right.

In many cases of acute gastritis and acute fermentative dyspepsia in which vomiting does not relieve the organ of its irritating contents, the stomach tube offers a speedy relief far superior to the use of emetics, as being sure while emetics sometimes fail,and as being soothing, whereas the emetics usually prescribed produce their effects by irritation, which is best avoided in an organ already irritated to the degree of lessened function.

The most genearl use of lavage is, of course,in the treatment of chronic gastritis, which is to be expected on account of the frequency of this disease. And in its use here are to be found perhaps, the most brilliant results, for the most distressing symptoms rarely fail to yield speedily to this treatment, be the cause what it may, whether from the abuse of the stomach by food or drink, or from those constitutional diseases which are so frequently accompanied by catarrh. To attempt to treat chronic gastritis by the use of digestants seems to me to be unwarranted. For although they may relieve some of the annoying symptoms for a time, they are performing the work which the stomach should do of itself and such measures are but temporizing. The use of other drugs alone, such as the bitters or nux vomica, with the hope of stimulating the gastric mucous membrane to increased functional activity, while rational in theory, seems hardly so practically, when we recall the fact that the mucous membrane is coated by a lining of tough, tenacious mucus which very effectually protects the membrane from contact with the drugs adminiistered.

Gastric Lavage, therefore, seems to me to be the rational basis of treatment in this disease. By the introduction and withdrawal of water in rapid succession the mucus is loosened and removed, leaving the membrane freely exposed for the local action of the proper drugs administered after lavage. Besides removing the food, which in so many cases in a short while undergoes fermentation, and the abnormal mucus, lavage has a further beneficial effect in stimulating the circulation, thus increasing the glandular activity, and in increasing peristalsis by reflex nervous stimulation which lessens retardation by gastric digestion, thus diminishing the chances of fermentation. It also prevents the accumulation of the food in the dependent portions or pockets of the stomach which tend to that deplorable condition, dilatation of the stomach.

The use of simple warm water for lavage is in mild cases often sufficient, but when much mucus is present I have found it most satisfactory for removing the mucus to add a little table salt to the water, say a tablespoonful to a quart, or else sodium bi-carbonate in similar quantity. If fermentation is marked and the accumulation of gas in the stomach with eructations, or the foul odor of the washing is a prominent symptom, I add some antiseptic to the water. The preparations which I have oftenest used and which have always been efficient are Wampole's Antiseptic Solution—formerly called Formolid—and Blair's Chloral Thymol.

In many instances I have seen the most marked relief follow the first washing, the sensation of oppression and the nausea disappearing immediately and the patient enabled to enjoy the next meal,when gastronomic pleasure had been to him a lost art

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perhaps for months. Such gratifying results rarely fail to appear in two or three days.

Of course the treatment must be continued, In case of moderate severity, I recommend daily lavage until the excess of mucus has disappeared and the stomach contents appear normal, and then continue the mechanical treatment every other day or twice a week for several weeks before ending it. In those cases arising from constitutional disease, lavage is, of course, only a relief measure and must be continued at such intervals as may be necessary until the causative disease has been controlled.

Another condition in which lavage has given me most satisfactory results is nervous dyspepsia—a condition of irritability of the stomach, with little or no increase of mucus and associated with nervousness and mental depression of moderate degree. Here digestion procedes normally as to its chemistry and with regard to its duration, but is accompanied with various local nervous manifestations such as pain, a sense of distension, etc., as well as the general nervous symptoms referred to.

Lavage has in several such cases been most effectual in relieving the patient when persistently used. The good result in these cases I take to be due chiefly to the reflex nervous stimulation produced by the procedure.

Do not misunderstand me as meaning to exclude appropriate medication in these cases or in gastric catarrh. My claim for lavage is not that it is always alone sufficient to bring about a cure, but that without it the treatment of these diseases by drugs alone is far slower in gaining the results sought even if they ultimately accomplish this end which they so often fail in doing.

As a palliative measure to assuage the suffering incident to dilatation of the stomach gastric lavage can hardly be too highly extolled. Of course it is not curative, but the promptness with which relief from the sensation of weight, the repulsive vomiting and distressing eructations follow the use of the tube,must recommend it to every one who will investigate the results and consider what lavage accomplishes in this condition,viz, the removal of the weight which tends to increase the distension, the removal of a stagnating and fermenting mass which is a constant source of irritation to the organ and the cleansing of the mucus membrane which facilitates the more perfect digestion of the stomach contents. In the condition which so closely resembles gastric dilatation in symptomatology but in which no real enlargement of the organ is present—termed by Ewald gastric insufficiency or motor insufficiency of the stomach—the results are most favorable for not only are the symptoms relieved but by this practice the stomach may be restored to normal function. Ewald's name for this condition is descriptive, for it arises from insufficient motor power which is over-taxed by the long continued presence of food in the stomach and the consequent efforts at peristalsis thereby excited. These failing, stagnation and fermentation follow with the accompanying irritation. Lavage by removing such contents prevents the irritation, and in emptying the viscus procures for it that *sine qua non* of normal function, physiological rest,

Another very useful purpose subserved by the stomach tube is the procuring of stomach contents for chemical analysis. Many devices have been heralded for this purpose, such as small leathern buckets attached to a silk thread by which small quantities of the gastric juice may be obtained, and various homely substitutes,such as the swallowing of a bit of sponge packed in a capsule and subsequently withdrawn after the capsule has melted and the sponge become saturated. To name one objection only—the small quantity procured—at once shows the superiority of the tube over such contrivances. The tube once passed into the stomach, a quick contraction of the abdominal muscles as in retching will easily expel the contents in sufficient quantity for any analysis.

The time of day at which lavage is best performed is greatly a matter of personal convenience. Of course, where repeated analyses of the stomach contents are to be made, the specimens should be taken at approximately the same hour and at the height of gastric digestion. For this purpose the test breakfasts are most useful—say a dry roll with a little water or weak tea—an hour and a half after which the specimen is to be taken. But in the routine daily lavage for therapeutic effects, I do not consider the test meal essential and allow a more liberal diet, simply avoiding coarse meats or other food which if undigested would clog the openings of the tube, and so interfere with the thorough performance of the treatment. If convenient, I usually prefer to wash the stomach after a light breakfast of, say, oatmeal, soft eggs, a roll and cup of coffee. But I have had equally good results when using the tube at bedtime or even early in the morning before breakfast.

The possible dangers attendant upon the use of the tube are so slight as to be hardly worthy of mention. Of course the tube may be passed into the larynx instead of the

œsophagus, but I have never heard of but one authentic case of this accident, and in the hands of a careful man I consider such risk to be infinitesimal. The other danger —the possibility of collapse from the sudden pressure changes upon the sympathetic plexus lying behind the stomach—seems worthy of more consideration, as several cases of this kind have been reported. But when we consider that only "several" such cases have occurred in the thousands treated, this danger wanes in importance. The only care to be observed to prevent this accident—and one which should be observed in all cases for other obvious reasons—is the use, in beginning the treatment, of small quantities of water at a time until the stomach has become accustomed to such unwonted measures.

The instinctive aversion that patients show to having their stomachs "laundered" is easily overcome by tact and by appealing to their intelligence after explaining their condition and the good that lavage will do them. I always forewarn them that it will be a novel and unpleasant, though painless, sensation the first time or two, but promise that the more they use the tube the less unpleasant it will become. The result of this has been that the great majority of my cases pronounced it not as bad as they had expected, after the first used, and speedily came to take the treatment without discomfort, one man saying, after a week's treatment, that "tubing" was not so unpleasant to him as shaving.

The technique of lavage is simple. A tube should be selected sufficiently stiff not to bend upon itself, yet sufficiently soft to avoid the chance of irritating or wounding the mucous membrane. I prefer a tube with an open end as well as an eye on the side, as this form is more easily kept clean than that with a closed end. The tube most commonly used is the straight tube with a hard rubber funnel at the end. Some, however, prefer to have a bulb inserted, but this is a matter of individual preference as it is not essential. I have myself often found the bulb of service in freeing the tube when it becomes clogged and in starting up siphonage when it had suddenly stopped before the stomach was empty.

The use of oils of any kind for lubrication will injure the tube and is unessential, as simple warm water is sufficient to make the tube pass readily. The patient's head is to be slightly raised and the tube passed to the pharynx directed to one side. Then as the patient bends the head and body forward at command, the tube can be easily pushed by the epiglottis and into the stomach. The water is now to be poured in—a pint to a quart at a time—and siphoned out by depressing the funnel quickly while the water is still running in. This process must be continued until the water returns perfectly clear. Sometimes it will happen that the water will return clear for a time and then become suddenly turbid. This is due to the release of food that had been protected in the folds of the stomach from the current. Moving the tube back and forth through a distance of two or three inches will usually insure against such an accident.

Sometimes it happens that on depressing the tube to produce siphonage, no return flow is started. This is due to two causes—the emptying of the tube into the stomach on account of tardiness in depressing the funnel while the tube is still full, and to failure to introduce the tube into the stomach. To avoid this the tube should be previously marked to show the approximate distance to which it is to be introduced.

Vomiting is often produced at first just as the tube passes the pharynx. If this occurs the tube should be lowered to allow vomiting through and around the tube and to avoid its withdrawal. Pressure upon the epiglottis by the tube and involuntary closure through fright sometimes produce cyanosis. Should this happen forced inspiration on the patient's part will promptly relieve the condition. Until tolerance is established gagging is a frequent interruption but can be quickly controlled by deep inspiration and a little patience.

The unpleasant sensations at first are due chiefly to the patient's inability to swallow while by the presence of the tube in the throat instinctive efforts are being continually made. The sensation is rather one of surprise than of pain.

Let me in conclusion repeat that the performance of gastric lavage is a simple procedure. For in the numerous cases that I have treated by this method, I have but once failed to carry out the plan, and in this case failure was due to the nervousness of the patient who, as fast as the tube was introduced, would pull it out with her hands before the water could be poured in.

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Therapy of the Nitrites.*

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The writer is influenced to offer some remarks upon this subject, because constant

observation from contact with the profession, both personal and through the current literature of the day has impressed him with the fact that the opinions held of the physiological action of the nitrites and their practical therapeutic exhibition is not only loose, but often erroneous, because of vague and indefinite knowledge of their true physiological action. We hear nitro-glycerine spoken of as a heart tonic, a glaring misnomer, practically wrong because it leads to wrong therapeutis.

No remedies are more valuable when exhibited under proper indications, therefore, we must study at the outset the rational physiological action of these agents, before we can intelligently discuss the therapy—And as preliminary to this and essential to a clear understanding, is a definite knowledge of the composition or constitution of the agents, in whatever form administered. Nitro-glycerine and Nitrite of Amyl are the forms most commonly used, though Nitrite of Sodium is sometimes exhibited. *Nitro-glycerine* is a transparent liquid, slightly soluble in water, soluble readily in absolute alcohol and ether, and in oil and fats taste sweetish and aromatic. It is prepared by dropping pure glycerine into a mixture of Sulphuric and Nitric Acid kept cool by ice, pouring the mixture into water, washing well, and carefully drying in a warm room; it is a *nitrate of glyceryl.*

Its action is similar to the nitrites upon the blood and organs, *but more powerful* because the whole of it is absorbed without decomposition, and the *nitrous acid* is set free in the blood in a nascent condition. (Brunton).

The most eligible form of administration is in the hypodermic tablet form, though it has been exhibited in solution, gr. 1 in 100 m. rectified sprit, dose m.ss to x, or in pill made up with cocoa butter,—strength 1-50 gr. to 1-100 gr.

Nitrite of Amyl—a yellowish liquid, strong ethereal, fruity odor decomposes freely when exposed to the air, leaving a large residue of Amyl alcohol, ether and chloroform. It is apt to contain free acid, nitrite of amyl nitro-peptone. - *Physiological test.* A sniff or two from the bottle produces flushing of the face; if impure, or it has lost its strength, this does not occur. Some specimens are inert. It is prepared by distilling dilute amyl alcohol with nitric acid, sulphuric acid and copper wire, the distillate washed with caustic soda to remove hydrocyanic and other acids; the moisture removed by potossium carbonate, and purified by fractional distillation. (Brunton) Because of the instability of its composition, Nitrite of Amyl has been largely superceded by Nitro-Glycerine, though the former is more rapid in its action, the latter is more permanent and stable. The relationship and similarity of action is based upon the fact that *Nitrous Acid* (a very unstable preparation chemically) enters as the important factor into their composition. Our knowledge of the *physiological action* of the nitrites has been obtained from the experiments made with Nitrite of Amyl, chiefly; but Nitrite of Amyl possessing an independent action of its own, the true test is applied in the *Nitrite of Sodium.* this base having no defined action of its own—Barth (quoted by Dr. G. Armstrong Atkinson, *Trans. Ninth International Med.* Congress, Vol. III, pg. 57) pointed out its highly poisonous qualities. Binz made some experiments on dogs, rabbits and pigs, showing that it produced death from general paralysis, *especially* of the *muscular system*, no *convulsion preceding* the *fatal issue* (Italics mine) Autopsy showed the venous system engorged, Ventricles unequally dilated, right most so, Auricles retain contractile power longer than Ventricles Cord failed to respond to strongest stimulation. He knew of no fatal case in man. His own experience after taking gr. viii Nitrite Sodium on an empty stomach—in a few minutes great tendency to faintness, considerable acceleration of pulse, lowered arterial tension, no visible flushing of any part of the body. No action on red blood corpuscles, white corpuscles readily paralyzed. The acceleration of the heart heat seems due to depression of the medullary centre, primarily, and to fall in blood pressure from vascular dilatation, secondarily, slowing of respiration due to action on respiratory muscles, and medullary centre. Nitro-glycerine shows its relation through the nitrites, into which it breaks down when it enters the blood. When death occurs from these agents, it is due to *nitrite poisoning.* But Nitro-glycerine possesses a double action, a paralyzer through its nitrate elements, and before decomposition occurs, it is itself a *convulsant.*

Synergists. Effect increased by all of the motor depressents.

Antagonistics—Strychnia, Brucine, Picrotoxin, Digitalis, Ergot, Belladonna, Chloroform. But under certain clinical conditions, some of these agents may be used in combination with Nitro-glycerine.

Physiological action. We may deduce practical facts from what has been before

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stated as the results of experiment as to the physiological action of these agents. Both Nitrite of Amyl and Nitro-glycerine accelerate heart action, produce sudden flushing of the face, dilatation of the arterials in consequence of paresis of the muscular layer of these vessels, sense of fulness of the brain, with tension and vertigo. Personal experience with Amyl-Nitrite gives emphasis to brain tension, with sense of fulness and distressing vertigo.

Nitro-glycerine—The effects of this agent specifically, *languor*, *nausea*, *rapid weak dicrotic pulse*, gastric pain, sometimes unconsciousness, lowering of temperature, complete resolution of the muscular system of animal life, dilatation of the retinal vessels. The feeble suffer more than the robust; change in the pulse begins in six minutes and lasts an hour. Motility is first impaired, then sensibility. It lessens sensibility to *all* forms of irritation and diminished reflex functions. It also impairs muscular contractility. Death is due to failure of the respiration; the cerebral functions are affected when carbonic acid poisoning ensues. The hæmoglobin of the blood is damaged, thus impairing the oxygen-carrying capacity of the red blood corpuscles, and accounting in this way for a fall of temperature. The color of the blood is a modified venous hue. The most serious symptoms are readily recovered from. Dr. Murrell (Section of Mat. Med. IX International Medical Congress) said that when experimenting as to dosage, he took about gr. iii of Nitro-glycerine and remembered nothing until next morning, when he had a shrewd suspicion that, from the headache he had on recovering consciousness, he had been out to dine the day before.

Both Nitrite of Amyl and Nitro-glycerine cause sugar to appear in the urine and increase the quantity of urine voided, though this statement as to increase quantity voided is in conflict with some authorities. Nitro-glycerine is more suitable for internal administration.

Therapy. In a discussion of this part of the subject, it is essential that not only indications for their exhibition should be discussed, but also the conditions *contra-indicating* their administration. The latter is especially important, because the clinical conditions under which agents of such therapeutic and physiologic power are given are so grave, that instead of doing the good sought, the issue may be changed, and if not fatal, at least result in an increased gravity in the condition of the patient. The indications for the exhibition of these agents is so similar that I shall treat them as one. Nitro-glycerine because more eligible for administration by the mouth, and of more permanent action, theoretically should exercise control of a most promising nature in the continuous treatment of Epilepsy; while nitrite of Amyl, because of its rapid action and volatile nature is more beneficial in warding off, or modifying the immediate attack. Gowers (Vol. II, pg. 764) speaks of Nitro-glycerine as being "sometimes useful, especially in the minor attacks." He advises the 1-200 gr. at the beginning, gradually increasing till the 1-75 gr. is reached, and refers to a case of "rather severe fits," which became fewer as the dose was increased, and finally ceased when the patient took 1-80 gr. and did not recur. I cannot speak as the result of clinical experience of the beneficial action of the drug, but a knowledge of its physiological action, and a fair deduction form the statement of so good an authority leads me to advise that the agents be given in even larger doses than he advises. Of course, we must always remember that the cause of Epilepsy may be of centric or excentric origin, and some conditions may exist which contra-indicate the exhibition of the agent. The peculiar phenomena to which we give the name, simply constitute symptoms, the diseased condition is back of the manifestation. A true therapy, therefore, is that which directs the remedy to the removal or modification of the cause. An accurate knowledge of the pathology of Epilepsy is yet to be attained, the modus of the nitrite in the benefit accuring from their exhibition is most likely due to modification of sensibility in the medullary centre, and diminution of muscular irritability.

Both Nitro-glycerine aud Nitrite of Amyl will cut short the cold state of intermittent fever. The latter often lowers temperature, sometimes several degrees: Nitro-glycerine not so pronounced in this direction. These agents have been recommended in Whooping-cough and Spasmodic Croup, but I have no clinical experience to sustain the suggestion. *Neuralgia of the 5th. pair of nerves*, and *Migraine* accompanied by *facial pallor*. But that form of Neuralgia, marked by *flushing* of the face, is aggravated. Tetanus and Hydrophobia are said to be benefitted.

The nitrites are antidotal to Strychnia, but clinical conditions arise, in which Strychnia may be exhibited in combination with Nitro-glycerine with marked benefit. Namely, an ischaemic condition of the blood vessels with feeble and engorged heart, the Nitro-glycerine produces relaxation of the blood vessels, while the Strych-

nia gives force and tone to the contraction of the heart muscle.

In reflex vomiting, in some cases of gastralgia, their action is most efficient.

Angina pectoris, both true and pseudo, the benefit is most marked, a few whiffs of Amyl Nitrite bring prompt relief, at times of great urgency of the symptoms. In cases of threatened heart failure, due to engorged right heart, and resistance in the blood vessels, resistance is removed, the engorgement overcome, nutrition improved, and thus most critical periods tided over. In the muscular spasm of neuralgic dysmenorrhoea, Nitrite of Amyl has proved most efficient. I would also suggest the use of Nitro-glycerine as an aid to overcome the *spasm of hour glass contraction of the womb*, especially if caused by the *improper administration of Ergot.*

In the weak heart of opium poisoning, Dr. A. T. Spencer attributes the recovery of the patient to the administration of Nitro-glycerine. My own experience is meagre and vague and does not bear out Dr. Spencer, though in all fairness, I would state my confidence in its efficiency, especially given in conjunction with Strychnia. In the irregular muscular spasm present in renal and hepatic colic, I believe we have a potent remedy in Nitro-glycerine, and in spasm of the same nature in the stomach and bowels, I know of no remedy so prompt and potent.

Case.—A lady was sent me by her physician from a neighboring city. Her nervous system was depressed from nerve irritation and tire. She was 54 years old, and for three or four years had been the subject of curious attacks of pain located in the right hypochondrium. These attacks usually occurred once in ten days. Various remedies had been tried by her physician. The pain resembled a true Angina Pectoris more than anything else, except for its location. Pulse feeble. From symptoms I diagnosed spasm of the pylorus. The first dose of Nitro-glycerine, though it did not entirely relieve her, brought such comfort that she did not repeat it. I directed another dose upon the first threatening of pain. This occurred at mid-night, 1-50 gr. Nitro-glycerine was taken with prompt relief. A tonic and corroborative course completely restored her health.

In Acute Bright's disease—(Parenchymatous, or Interstitial Nephritis) at the stage of greatest vascular tension and most scanty renal secretion, I have repeatedly seen most marked relief from the exhibition of Nitro-glycerine. It should be given in constantly increasing doses until the effect is obtained. I never give less than gr. 1-50 every six hours, and have increased it until a gr. 1-20 was taken every two hours. I have been disappointed in the result when exhibited in spasmodic asthma, and sciatics.

Contra-indications. Most prominently, the use of these agents to sustain the heart in Septicaemia and Typhoid Fever, persistent high temperature not only exerts a destructive action upon the muscular system generally, but upon the heart muscle as well—feeble heart action primarily impairs, most seriously, first the nutrition of the heart itself. *No agent can be safely administered to sustain heart action and avert death from heart failure whose physiological action is known to be, first, depression of the medullary center, consequent threatened paralyiis of respiration and markedly paralysis of the muscular system.*—Impairing the oxygen carrying capacity of the red blood globules, still further affects nutrition of the general muscular system and of the heart itself. I would, therefore, earnestly condemn their exhibition under such conditions. I am aware that it will be urged that clinical experience contradicts this, position, but I answer, the evil result has been averted by the exhibition at the same time of Strychnia, Alcohol &c. and a greater amount of good would have accured to the patient had the nitrite agent been omitted. This furnished a suitable illustration of conditions in which these agents are contraindicated, and I need not tax your time and patience further.

Finally, it must be remembered that the repeated and long continued use of these agents begets tolerance; that we find a great difference in the susceptibility of different subjects, and that sometimes there may occur sudden and alarming unconsciousness with marked pallor and feeble or absent pulse.

Nitro-glycerine is the *one agent* which acts more promptly by the mouth than when given hypodermatically.

Bibliograahy.

Brunton, Bartholow, Potter, Hare, Ringer, Gowers, Gray—Transaction 9th International Medical Congress—Annual Universal Medical Science 1889.

Former paper Va. Medical Monthly, February 1899—freely quoted.

210 W. Grace Street.

How to Regulate the Practice of Medicine in Virginia.†

By R. S. Martin, M. D., Stuart, Va.

Mr. President and Fellows of the Medical Society of Virginia:

The answer to my subject may seem to

be a very easy one—enforce the law. If this had been done, if it always could be done, it would be useless to appear before this society with this paper. Why it has not been done successfully, and why it is difficult to do, and how to remedy the evil, are some of the things I propose to speak of. The illegal practitioner and quacks are among us, and judging from the number of letters I receive from different parts of the State, they are on the increase, and I have yet to find only a few of the officers in the different counties where they exist, who think it their duty to do anything to have the law enforced. I have no apology to offer this society for this condition of affairs. Since I have been the secretary of the Medical Examining Board of Virginia, I have investigated every case reported to me, and when I found it to be one which required the law to be enforced to restrain the party from practicing medicine, I have not hesitated in trying to have this done, but I have neither found this to be a pleasant task nor always a successful one. In some parts of the State where the officers are in sympathy with the law and will do their duty, and the physicians will stand up for their rights, I have always been successful, either getting the party to come before the board, having him fined, or leaving the State, but when the county officers are not in sympathy with the law, and the physicians are divided, we are powerless, and it is almost useless to attempt to do anything. I am often in receipt of letters from physicians living in different parts of the State wanting to know if Dr. A. or Dr. B. have passed the board. The most of them close by requesting me, if the party mentioned is not legally practicing medicine, and if it becomes necessary to have an investigation and set on foot a prosecution, not to mention their names, as they do not wish to have anything to do with the case. You can very readily see how diffieult it would be to have the law enforced under such circumstances, and how necessary it is to have the co-operation of the physicians. Some one must make the complaint to the State's attorney, or swear out a warrant before a justice of the peace, and who is more capable or more interested in doing this than some of the legally practicing physicians in the community. I contend that it is a duty which they owe to themselves, in protecting their rights and preventing these quacks from longer imposing on the people, and the first point I wish to make is, that before you can enforce the law as it should be, you must have the co-operation of the legally practicing physicians of the county in which the quackery occurs. In some parts of the State the physicians look after their interest and the board has no trouble, and the law is always enforced. The following letters will illustrate this point very forcibly:

Dear Doctor:—I write to know if P. R. W., of Illinois, late of Atlanta, Ga., who is now practicing medicine at Bridgewater, Va., has complied with the State law in regard to practice of medicine and surgery in Virginia. He is a man of about 65 years and has just arrived here and is practicing all kinds of quackery, hence I was made to doubt that he was registered in this State. He is at the head of the so-called institute described on the enclosed circular. This business has become such a nuisance that we can scarcely tolerate it further. There is a movement on foot to call an indignation meeting of the citizens of the town tonight. Men in the most humble walks of life are coming here and learning the business and going about practicing it. Several persons have died under the care of these healers with no physician present at all. It has reached the limit of toleration. Cannot something be done to suppress it? Would be glad of a word of advice from you by return mail.

Very truly, E. R. Miller, M. D.

I promptly wrote the doctor that this man had never passed the board, and had no temporary permit, and to have him prosecuted and that I would aid him all I could. The following letters show the pluck and promptness with which Dr. Miller acted, and the results of his action. I commend him for it, and so will every member of the board and this society.

My Dear Doctor:—Yours of recent date received. I did not swear out a warrant for P. R. W. as you suggested, because upon investigation I found that he had under very peculiar circumstances obtained a license. I do not know why, but he went to an ex-commissioner of revenue, who wrote out his application without asking proper questions. He then went to the Treasurer's office and obtained license to practice his infamous business upon the people. After learning this fact I reported him to the attorney for the commonwealth, who proceeded at once to have his license revoked. He employed a counsel in defense, but after his license was taken from him, he gave up without a further trial. He says now that he is determined to practice his magnetic treatment in Virginia and at Bridgewater, therefore he is going to be at the next meeting of the State board for

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the purpose of obtaining a certificate. He has as his assistants some of the ignorant people of the town, whom he has taught the business since he came here. They have been practicing under his instructions and receiving pay for their services, therefore I think all his assistants are open for indictment, as I do not see how all can operate under one license. Do you not think that the Medical Society of Virginia, at its next annual meeting should consider a plan by which the practice of Faith Cure, Christian Science, Magnetic Healing, &c., might be prohibited in this State? This thing at Bridgewater is a nucleus from which we can expect trouble in the State from time to time. Thanking you for the interest you have manifested in this case, I beg to remain,

Yours very truly,

E. R. MILLER, M. D.

My Dear Doctor:—Your inquiry of the 22d just received. I gave you details in a letter just mailed this morning. The old doctor left for parts unknown on the first train to-day. His assistant is still here, but don't think he will attempt to do business. I am the recipient daily of the severest censure by his sympathizers, because I am the only physician in the town or community that would attempt an investigation of the matter. I am standing up in defense of principle, and fighting for the enforcement of law, therefore I am not ashamed of any part I have taken in the matter whatever.

Fraternally yours,

E. R. MILLER, M. D.

I have recently heard from Dr. Miller, saying that the old doctor's assistants are still practicing.

If all the physicians will stand up for their rights and see the law enforced as Dr. Miller has done, quackery and illegal practitioners would soon be unknown. To all under like circumstances, I would say, go and do likewise.

I have been made to wonder whose duty it was to look after parties violating the State Medical Laws, for as yet I have found no one who seem to think they have any right to enforce this particular law. I firmly believe that if it was left to the State officers, and no complaint was made from the Medical Examining Board, or any of the physicians, that we would never hear of this law being enforced. I don't think that one magistrate out of a hundred know that there is such a law in Virginia. Therefore, the next difficulty in trying to have the law enforced is, that the officers, with but few exceptions, will not do their duty. The practice of medicine in this State without a certificate from the board, is called in law, a misdemeanor. Justices of the Peace alone have jurisdiction over such cases. The attorneys for the commonwealth claim that they are not required to prosecute cases outside of courts of record and we are left at the mercy of the magistrates. With all due respect to this class of our citizens, they are not, as a rule, capable of trying these cases. In the first place, they are not in sympathy with the law. The most of them think that any man who can pay his license tax and wants to practice medicine, should be allowed to do so. In the second place, the magistrates from whom you obtain the warrant, lives in the same magisterial district with the quack or illegal practitioner, and in some cases that have come under my observation, they have this quack as their family physician. In the third place, magistrates are not usually made of the proper kind of material necessary to see the wisdom of the Medical Laws. They can very easily be influenced by the lawyer and friends of the defendant in believing that the prosecution is done through a spirit of jealousy, envy or malice on the part of the Medical Examining Board or one or more of the legally practicing physicians of that community. In the fourth place, just as long as the magistrates have jurisdiction over these cases, just that long we will have quacks and illegal practitioners in the State. I know of a quack who is now practicing in this State who has gained a great deal of notoriety by my effort to have him prosecuted, his friends cry persecution, and he is now posing as a martyr. The failure on my part is simply due to the fact that the officers would not do their duty. The commonwealth's attorney would not give any assistance, the magistrates all in sympathy with the quack, and the doctors in the county divided, those in his favor doing all they could to protect him. Under such circumstances it was absolutely impossible to get even a trial.

I know of a young man, non-graduate, who has been practicing medicine all the summer under another doctor's license, fourteen miles from the physician owning the license. I am informed that this is quite a common occurrence in some counties. I know of another young man who failed to pass the board and went home and began practicing, and because he and the county judge were members of the same church, I was never able to get any action taken against him.

I know of a quack who tries to avoid the law by claiming that he makes no charges for his services as a doctor, but only charges for the use of his horse and buggy. I recently saw a case of sickness that had been

in the hands of a quack. He had been treating the patient for what he called "rheumatic fever" for three weeks. His urine was scanty and this quack advised eating large quantities of watermelon. The patient took his advice and had, in eight hours afterwards, two severe hemorrhages from the bowels. He had typhoid fever. The commonwealth's attorney has been informed and a prosecution is now on foot, and I have been informed that he has left the State.

I could mention many other cases but these are sufficient to show that violation of the Medical Laws of this State are a very common occurrence and that conviction for this offence is very rare.

Now what is the remedy? You will not find it in your magistrate courts. I have been there and carried with me sufficient evidence, and some of the best legal talent in my part of the State, for the purpose of upholding the law, but all to no effect. I have been made to feel how insignificant the Medical Examining Board is in the presence of the quack, backed by his friends and a lawyer, in a magistrate's court, therefore the first thing to do is to change the law. We cannot appeal from a magistrate's decision nor any of their rulings. I had three magistrates to rule not longer than twelve months ago, that the Medical Examining Board must pay the defendant's cost, if he was not convicted. I heard of the commonwealth's attorney saying that the only interest he felt in this case was to keep the cost off of the commonwealth of Virginia.

This was an outrage, a travesty on justice. We could do nothing but fold our hands and bow our heads in shame that such proceedings as this should happen in Virginia, Change the law so that we can try our cases in the higher courts, before intelligent jurors and judges. Take the cases away from the ignorant magistrates, who do not know the value of the Medical Laws, and whose judgment can be moulded and opinions shaped by the defendant lawyer, and in a few years at best, Virginia will be rid of what is fast becoming a menace to society and the best interest of this commonwealth.

For the purpose of comparison, I will now present you with the modes of procedure in some of the different States against quacks and illegal practitioners.

On the 25th of last August I wrote the following letter to the Secretary of the Medical Examining Board of 25 different States:

My Dear Doctor:

1. How do you proceed against quacks and illegal practitioners?

2. Before a justice of the peace or courts?

3. Do you have any trouble in having the law enforced?

4, Are non-graduates examined by your board?

5. What are your requirements as to the educational qualification of the applicants.

6. What per cent. required to pass your board?

7. What rules do you adopt to prevent cheating?

The following answers were received, and as we are at present concerned only with the first four questions, I will omit the replies to the others:

In Connecticut.

They proceed against quacks and illegal practitioners before their courts. The county health officer is a lawyer, and looks after the cases. There are many midwives still illegally practicing. Some send in the returns of birth through licensed physicians, who turn them in as their own. Quacks cannot get in. Non-graduates are examined. Applicants to practice midwifery are examined in obstetrics only.

From the Secretary of the New Jersey Board I received the following reply: We proceed against quacks and illegal practitioners before Justices of the peace or Grand jury and courts. We have no trouble in having the law enforced. Non-graduates are not examined by our board. The respective district attorneys of the counties of this State, prosecute violation of our medical law.

From New York I received the following reply:

Quacks and illegal practitioners are proceeded against by the district attorney of the county in which the quackery is carried on, on charges made either by individuals or by the officials of the County Medical Society. Proceedings are instituted in the courts. Non-graduates are not admitted to examinations for license.

In Pennsylvania they proceed as follows; We first serve official notice that they are violating the law and will be prosecuted if they do not desist, this suffices for the majority. If necessary, suit is brought before a justice of the peace and they are held for court. As a rule the respective county medical societies take this action. The board only takes up extraordinary cases, where the profession are unable financially to prosecute them. We have but little trouble in enforcing the law. In fact, the more than 2000 licensed physicians in the State

look after their rights. Non-graduates are not examined by the board.

In Maryland:

The secretary writes that as a rule great difficulty was experienced in securing action through the State attorney against illegal practitioners, until the board found it necessary to employ its own counsel and through him cases are prepared, testimony formulated and pushed upon the authorities. Indictments are secured before grand juries and tried in the courts. Some trouble is still experienced in enforcing the law where the county authorities do not co-operate. Non-graduates are not examined.

In North Carolina:

They call the attention of the solicitor to the illegal practitioners, or the grand juries. Have no difficulty in having the law enforced. After January 1st, 1900, non-graduates will not be examined.

In South Carolina:

They proceed as follows: An individual or county society report the case to the prosecuting solicitor of the Judicial circuit. He makes out the indictment and presents it to the grand jury. If they find a true bill the party is tried in the upper courts as for any other offense. We have a great deal of trouble in enforcing the law. Nobody wants to appear as witnesses against illegal practitioners and the county officials are loth to take action for fear of losing popularity in a succeeding election. Non-graduates are not examined.

In Tennessee:

Grand juries have inquisitorial powers against all unlicensed physicians, and we can prosecute them before magistrates and bind them over to a circuit court. When once a licensed physician becomes a quack we can do nothing. We have some trouble in enforcing the law. Non-graduates are examined.

In Illinois:

They proceed either justices of the peace or higher courts. Either side can appeal if the action begins in lower courts. The fine for the first offense is $100, for each subsequent offense $200. The court may order that the defendant be committed to jail, for first offense, not over 30 days, for each subsequent offense not more than 90 days. They have not the least trouble in enforcing the law. Non-graduates not examined.

In Ohio:

The secretary writes that their usual proceedings against illegal practioners consists in filing an affidavit before a justice of the peace in the county in which the offense occurs. In some instances we bring the matter to the attention of the grand jury. In some parts of the State we have considerable difficulty in enforcing the law, from the fact that the prosecuting attorney of the county who the law provides shall assist in the prosecution, does not seem to be in sympathy with the law. In other parts of the State have little or no difficulty in enforcing the law, and in such counties violation of the law is very rare, because of the fact that illegal practitioners know that the prosecuting attorneys will enforce the law. Non-graduates are now examined by our board for the reason that the board, under the present law, is not an examining board. We issue certificates entirely upon the basis of graduation from recognized Medical Colleges.

In Louisiana:

For the parish of Orleans they have an attorney who prosecutes, but in other localities, in case the local district attorney refuses to act, they employ some local attorney. They try their cases in the courts and not before justices of the peace. Osteopaths are only ones giving them trouble. The provisions of the Louisiana law, seems to me to be better in some respects than those of other States, but the Roman law is the foundation on legal practice in Louisiana, while with us it is the English law. Their methods may not be applicable. In Louisiana, should any one practice without license, a suit in equity is brought and the illegal practitioner is summoned to show cause why an injunction be not issued to his practicing medicine. If the writ is issued, it also contains a judgement for damages, really a fine, including a fair amount for lawyers fees for the plaintiffs lawyers. In this way the matter is always brought before a judge without the intervention of a jury trial. I hope the attention of the attorney-general will be called to this law, and see if it cannot be adopted to our English form of procedure.

Kentucky boasts of her ability to restrain illegal practitioners, but just how it is done I do not know, as I have been unable to hear from the secretary.

As before stated, our mode of procedure is before justices of the peace. No appeal from their decision. The quack, alone, has the power to carry his case to a higher court, it is very rarely necessary for him to do this. He can usually manipulate the justices to his satisfaction. Don't understand me to mean that this is always the case, for there are some magistrates who will do their duty, and where they live, with the help of the physicians, quacks do not exist, for they know the law will be enforced. There are some other changes in the law to which I call your attention. Only two

States heard from examine non-graduates. For many reasons, every applicant for license before the board, should be required to show his diploma, when he is registered by the secretary, deception is sometimes practiced by the applicant upon he board. I have had this to happen to me several times recently. Applicants register as graduates when they are non-graduates. The history of most non-graduates is, if they pass the board they never graduate in medicine.

The object of the Medical Examining Board is to elevate and broaden the Medical profession, and thereby protect the health of the citizens. This clause in our law should be repealed, and as Dr. Edwards remarked in the Semi-monthly of October 13th, Judicicious legislation will save the commonwealth from the influx of non-graduates, who, finding themselves unable to secure license in other States, would come in semiannual crowds into Virginia.

Another matter I feel duty-bound to mention, and urge some favorable action to be taken by this Society, is the reciprocal exchange of license to physicians from other States, whose requirements to practice medicine are equal to ours. This, in my opinion, is just and right. It is unfair to require practitioners, of good standing, coming into our State, to stand a very rigid examination before our board. Under our present law we are required to do this. I know of many cases since I have been a member of the board that had to stand the the examination, when we knew they were a credit to the profession. Just last spring we had three old practitioners, whom the law required us to examine before they could begin practice, two of them had been surgeons in the navy. I am glad to see the various Medical Journals and the National Confederation of the State Medical, Examining and Licensing Boards are in favor of this scheme. So far as I know every member of the Examining Board of this State are in favor of this plan. Here is a letter which explains itself. It was sent me by Dr. Edwards. I am often in receipt of similiar ones:

Dear Dr. Edwards:—I want to presume on your time for a minute, because I know you can give me the information I seek. It is in reference to the Medical Examining Law of Virginia. It has been for a long time my great desire to live at my old place in Powhattan County, Va., and I think I am now in a position to to so. Of course, I do not want to quit practicing medicine entirely and I could not do so very well, as there is no physician in ten miles around there. I am a graduate of the University of Virginia, and also hold a diploma from the post-graduate Medical School of New York, am professor of nervous diseases in the Columbian University of this city, am a member of the Medical Association, the Medical Society, the Clinic Pathological Society of this city, of the Medical Society of Virginia. I am attending physician for nervous diseases to the Emergency Hospital here and also hold a license from the Examining Board here. Notwithstanding, I do not believe I could go down there and stand that examination, to save my life, without craming up for a long time.

I want to know if the law in Virginia will recognize a license from the District of Columbia? I could have asked this question in fewer words and taken less of your time, but I wanted to explain things fully. It is a pretty serious thing to require a man to study medicine all over again, for that is what he would practically have to do, if he has graduated ten or fifteen years ago. In all fairness and frankness, I can see no reason for having a law that requires us to examine physicians in good standing, like the author of this letter, when they wish to move into our State. Of course the board has a ruling of its own in regard to such cases, but still I can see no good reason for the examination.

In conclusion, Mr. President, I have in a brief and very unsatisfactory manner given some of the reasons why the Medical Laws of this State cannot be strictly enforced. The Medical Examining Board cannot enforce the law without the cooperation of the physician and proper officers, a change in the law is absolutely necessary. Every other State, so far as heard from, if they begin their action before a magistrate, can appeal to higher courts, if necessary. We don't even have this privilege. If we get an indictment before a grand jury, we have to carry it before a justice for trial. We are under the control of a set of officers more ignorant in regard to this law, than the quack is of medicine. This must be changed. The members of this Society can have it done. The Legislature meets this winter and if this Society will take some action, and each member demand of their respective representative that he vote for a law making the necessary change, the change will be made. The doctor in various sections of the State have a power in politics, and their wishes, if it is one for a noble and humane purpose, will be respected. Neglect this, and Virginia will be the dumping ground for a greater part of the quacks in America, for I tell you, and I speak from several years expe-

rience, that the present law is defective, that it cannot be enforced when the quack employs a lawyer, who tells the magistrate that it is a class legislation and unjust discrimination and unconstitutional and says all manner of contemptible things about the board, and thereby prejudice the mind of those we depend on for justice.

I have been made to suffer, when I had no remedy, I have borne it in silence, for I believed it was my duty and that our cause was a just one. I had rather be right and loose, than gain on the wrong side. I am not asking this Society for sympathy, but help to make a law that we can have enforced, help to bring every man to obey the law. If what I have done, if what I have said, if what I can do, will in the least bring about this result to my profession, I shall be satisfied.

A Perfect Antidote for the Poison of Snake and Spider Bites.*

By Dr. S. T. A. Kent, Ingram, Va., 2nd Vice President Virginia Medical Society. Member Board of Health of Halifax County, Etc.

I wish to call the attention of this Society to the medical virtues of a plant which is a perfect antidote for the poison of snake and spider bites.

Messrs. Parke, Davis & Co., of Detroit, Mich., have kindly, through their Herbarium department, identified this plant for me as "one of the allies of the ferns, viz., one of the club mosses selaginella apus (Lin.) spring."

Dr. Rawley White, who lived near Peytonsburg in Pittsylvania county, Virginia, in the early years of the present century, introduced this remedy to the civilized world, and stated that he had learned its virtues from the Indians.

This plant, as you may surmise from its being related to the fern family, may be found only in moist shady places. Along the small streams and around the springs in Halifax and Pittsylvania counties it grows. To what extent it may be found in our State and country I am at present unprepared to say.

The method of using this plant, which is locally known as snake moss, is to take as much as can be packed in a large thimble, about half a dram in weight, macerate it thoroughly with an ounce of sweet milk, and have the patient to drink the milk and swallow a portion of the moss, binding the balance to the wound, though I am doubtful as to any good being accomplished by this local application.

I will cite a few cases showing the use and effect of this moss.

Case 1. Mrs. Susan D., age 45, was taking an after-dinner nap when she felt a stinging sensation on her upper lip, raised up on the bed and found a red and black spider on the counterpane. Very soon her lip began to swell, followed by sinking or fainting spells recurring every 15 or 20 minutes. I saw her about two hours after she was bitten, just as she had one of the sinking spells, found her lip badly swollen, pulse very feeble, complaining of nausea, with intense pain in her lip extending over the face. As soon as I could prepare it, I gave her the moss as described above. She did not have another sinking spell; in one hour her pain was relieved and the next morning all trace of swelling was gone from her face. No other treatment was given her.

Case 2. James T., age 11, was bitten over the instep of his right foot by a large copperhead moccasin. I saw him one hour after the bite, found him suffering much pain, and foot swollen to twice its natural size. Gave the moss at once with the milk, with almost immediate relief of pain. Called to see him the next morning; found the swelling all gone, and the boy at play, with only the scratch of the bite to remind him of his encounter with the snake.

This moss is just as efficacious in the treatment of snake bites in animals as witness the following:

I had a hound bitten by a large moccasin about an inch above his nostrils. I saw the snake when it bit him and went immediately for the moss, and as soon as I could get the dog to the house, by which time probably half an hour had elapsed, I prepared the moss, but his head and lips were so badly swollen that he could not drink the milk, so I poured it down him. This was after dark, and the next morning the dog was well and hunting as usual.

I could add many cases to those cited above, extending over a long term of years, but deem these sufficient to establish the certainty and celerity with which this moss acts in antagonizing the poison in the above described wounds.

In what way does it give such prompt relief? It must be that it neutralizes the poison.

(1.) "According to the researches of Mitchell and Reichert, venom induces rapid necrotic changes in living tissues with which it is brought in contact. It renders the blood incoagulable, disintegrates the red blood corpuscles and produces such a change

*Read before the State Medical Society of Virginia, October, 1899.

in the capillary blood-vessels that their walls are unable to resist the normal blood pressure and wide and rapid blood extravasation results."

This accounts for the rapid progress of the swelling in the parts bitten, and points out the need of haste in instituting treatment, for after the swelling has reached its maximum, the benefit derived is not near so marked or prompt, as I have had occasion to note in numerous cases that have come under my observation.

(2). "The physical appearances of all serpent venom is nearly alike, it is a viscid fluid varying in color from a pale amber to a deep yellow and containing in solution certain albuminoid principles which are the toxic elements, the nature of which has not yet been made out." And I might add that the effects of the venom of the different species of serpents vary not so much in character as in activity and intensity, and this leads me to believe that what would neutralize or antagonize the venom of one species of serpents would, if properly used, prove an antidote for all the different species, including the rattlesnake, cobra, etc.

I am aware that as a scientific paper there may be much lacking in detail in what I have written, still I have given you easily demonstrated facts, and should any Fellow of this Society feel enough interest in this matter to investigate for himself, I will furnish him with a sample of the moss, which will enable him to find and test its merits for himself, knowing if the test be fair the results will be all that could be desired.

BIBLIOGRAPHY.

1. American Text-Book. Surgery, Keen and White, page 122.

2. American Text-Book, Surgery, Keen and White, page 121.

Four Recent Cases of Gall-Stones, with Remarks.*

By Hunter McGuire, M.D., LL.D., Professor of Clinical Surgery, University College of Medicine, Richmond, Va.

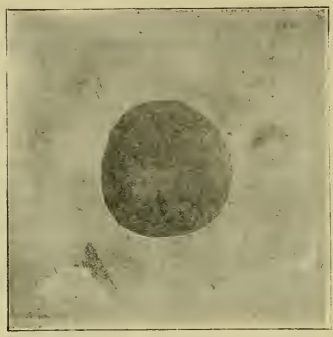
The records of St. Luke's Hospital show that during the past year four cases were operated on for stone in the gall-bladder, two by my son Dr. Stuart McGuire, and two by myself. As each case presents points of special interest I will report them somewhat in detail and draw a few conclusions in regard to the diagnosis and treatment of the condition.

*Read before the Medical Society of Virginia, October, 1899.

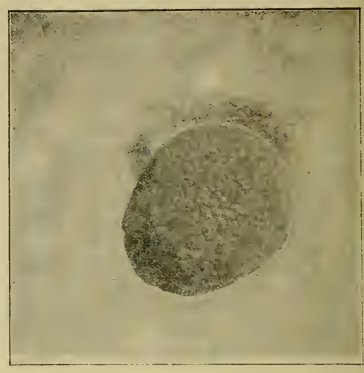
Case 1. Miss M. S. H., age 30, of Blackstone, Virginia. Gave a history of frequent attacks of pain which began in the region of the gall-bladder, then became diffused over the abdomen, and finally centered in the right iliac region. The attacks came at short intervals and much impaired the patient's general health. There was no history of jaundice or elevation of temperature. It was found impossible to differentiate between appendicular inflammation and gall-stone. Subsequent developments proved that she had both. An incision was made over the appendix and that organ removed. It was found long, bent upon itself and filled with fecal concretions. A second incision over the gall-bladder disclosed the bowels matted to the under surface of the liver, and it was only after separating a good many adhesions that the viscus could be exposed. When reached, it was found small, contracted and thickened, and a single stone could be felt in the cavity by palpation. The gall-bladder was incised and the stone removed. The cut edges of the bladder were sutured to the parietal peritoneum and the lower portion of the abdominal incision closed. For four or five days there was no discharge through the fistula, but later there escaped a large quantity of golden-colored bile. The fistula remained open for several weeks but finally healed and the patient is now well.

Case 2. Mrs. S. J. W., age 41, of Graham, North Carolina. Gave a history of a slowly enlarging mass in the region of the gall-bladder, with great local tenderness, but never an attack of acute colicky pain or the development of jaundice. There was evidently circumscribed peritonitis and at times an elevation of temperature sufficient to suggest the probability of suppuration. An incision was made over the gall-bladder and it was found adherent to all adjacent structures and was with great difficulty

freed sufficiently to bring it into the wound. When opened there was the escape of five or six ounces of fetid pus, and a finger inserted through the opening disclosed the presence of a large stone. It was removed with the forceps, the free edges of the cut in the gall-bladder sutured to the parietal peritoneum, gauze drainage inserted, and the remainder of the abdominal wound closed. A purulent discharge escaped for several days through the fistula and was then replaced by the characteristic hepatic secretion. The patient made an uneventful convalescence; the fistula closing spontaneously at the end of the third week, and she being discharged cured.

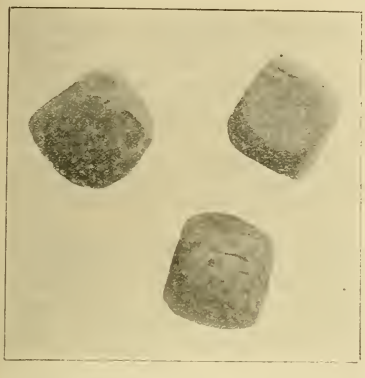


Case 3. Mrs. G.G.R., age 40. of Castor' Virginia. Discovered the existence of a large freely movable tumor in her abdomen and though she had never had jaundice, fever, pain, tenderness or any symptom to alarm her, she came to the hospital in order to ascertain the nature of her trouble and to have it corrected. The tumor could be rolled about loosely and could be pushed down to Poupart's ligament on the right side or carried across the abdomen to the left iliac region. Differential diagnosis between a loose kidney or a distended gall-bladder was difficult, and the operation undertaken was rather in the nature of an exploratory one. An incision made in the median line disclosed a smooth, round, fluctuating mass, which careful examination proved to be an enormously dilated gall-bladder. The incision was enlarged sufficiently to pull it through the wound and, after carefully packing around with gauze to protect the abdominal cavity, an incision was made into it and almost a quart of clear mucus, identical in appearance with pure glycerine, allowed to escape. The insertion of a finger revealed the existence of a large stone, which was removed, and the case treated as the two which have already been described. Convalescence was rapid and uneventful, the fistula healing spontaneously at the end of three weeks. The patient was discharged cured.



Case 4. Mrs. J. B., age 35, of Blackstone, Virginia. Had a sudden and acute attack of abdominal pain, which was diagnosticated and treated by her local physician as appendicitis. She slowly recovered from the illness, but four weeks later had a recurrence which was identical in its symptoms. She was first seen in consultation at her home and the diagnosis of appendicitis concurred in; but as the symptoms were subsiding and the conditions in the country were unfavorable for an operation, it was advised to wait, with the hope that the patient would be strong enough to be moved to Richmond. She was finally brought to St. Luke's Hospital, and when admitted was found to have a temperature fluctuating between 99 and 101 deg., considerable rigidity of the abdominal walls and great tenderness on pressure over McBurney's point. After the usual preparation the patient was placed on the table and an incision for appendectomy made. The appendix, when brought into view, was found free from obvious diseases, but was removed and a thorough search then instituted to detect the cause of the trouble. An examination of the ovaries, tubes, uterus and kidneys gave a negative result, but on carrying the hand high up to the under surface of the liver the gall-bladder was found impacted with stones. A second incision was made parallel to the external border of the right rectus, immediately under the costal arch, by cutting from without inwards on the fingers as a guide. The gall-bladder was brought into the wound and opened. Three large stones were removed, the cut

edges of the viscus stitched to the margin of the peritoneum, and the balance of the wounds closed. Bile drained from the fistula for four weeks, but it finally closed and the patient is now well.



The four cases reported by no means embrace all of my work in gall-stone surgery, but are repeated in detail, partly because they so recently came under my observation, and will form a basis for some remarks on this subject.

It is evident that the diagnosis of gall-stones is not always easy. The fact that from 3 per cent. to 10 per cent. of all post-mortem examinations show the presence of cholelithiasis proves that the condition is a very common one; the comparatively small number of operations performed for the trouble proves that it is often overlooked, either because the stones give no trouble or because the symptoms produced are so misleading as to be misinterpreted.

Gall-stones are concretions due to the precipitation of cholesterin from overcharged bile. They vary widely in number, size and shape. They form usually in the gall-bladder but are frequently found in the cystic and common ducts. They occur most commonly in women about middle age, and are supposed to be due to causes which lead to the concentration and stagnation of bile, such as tight lacing, over-eating and sedentary habits of life.

The three cardinal symptoms of gall-stones are pain, swelling and jaundice. They rarely coexist in an individual case and it is only by a careful study of those present, and a thorough knowledge of the anatomy, physiology and pathology of the bile tract that the trouble can be differentiated from billiousness, dyspepsia, kidney colic, appendicitis, intermittent fever, gastric catarrh and other conditions.

Pain in cholelithiasis is characterized by being acute, colicky and paroxysmal, beginning in the region of the gall-bladder and radiating to a point beneath the right shoulder. Pain is not caused, as is generally supposed, by the passage of a calculus through the billiary ways, but is due to a spasmodic contraction of the gall-bladder in an attempt to overcome the obstruction to the flow of bile through the ducts, due to an extension of inflammation from the vesical mucosa to the lining of the ducts, as proved by the fact that colic is rarely followed by the escape of a stone, and that the discharge of a stone is frequently not preceeded by colic. Pain is an almost constant symptom of gall-stones, but its severity, duration and location is often misleading. Tenderness, or pain elicited by pressure, is not present unless local peritonitis exists.

Swelling—the second of the three symptoms named—is due to the presence of an enlarged and distended gall-bladder, Its occurrence is dependent more upon the elasticity and distensibility of the walls of the viscus than upon the degree and location of the obstruction.

In stone of the gall-bladder the walls may be thick and contracted, and the organ free from fluid; or the walls may be thin and stretched, and the cavity filled with a mixture of mucus and bile. In stone of the cystic duct the gall-bladder is sometimes empty, but is more frequently converted into a retention cyst and filled with pure mucus. In stone of the common duct the gall-bladder is generally distended with bile. In suppurative cholecystitis it is usually filled with pus.

Jaundice—the last and most interesting symptom of gall-stone—is the one most frequently misunderstood. According to my observation at least one-half the cases of gall-stones are never attended by jaundice, and at least one-half the cases of persistent jaundice are not due to gall-stones.

In the four cases of gall-stones just reported none exhibited jaundice, and in the only two cases of jaundice operated on during the same period in the same hospital cancer was found to be the cause of the condition. One case died from the disease, the other still lives, having been relieved from icterus by an anastomosis of the gall-bladder to the duodenum, but never having passed the button by which the fistula was established.

In stone of the gall-bladder jaundice is usually absent; if it occurs it is slight and transitory. In stone of the cystic duct

jaundice does not often occur unless the calculus reaches the distal extremity of the tube and presses on the lumen of the common duct. In stone of the common duct jaundice is invariably marked and persistent, if the obstruction is anything like complete.

The Roentgen Ray, which furnishes such absolute and conclusive proof of the existence of a calculus in the kidney, was for a time hoped would prove equally satisfactorily in diagnosticating the presence of concretions in the gall-tract, but experience proves that it is almost worthless. Gall-stones are practically pure fat, and offer so little obstruction to the passage of the light that but a faint and uncertain shadow is cast on the flouroscope or photographic plate.

When confronted with a case of gall-stone the practitioner naturally asks shall the treatment be medical or surgical; what hope does internal medication offer; what danger does surgical intervention entail? These questions are yet unsettled, and as my limited experience does not justify a dogmatic answer, I merely wish to express my personal opinion.

Medical treatment is potent to prevent cholelithiasis but powerless to dissolve the stones when once formed. The limitation of the diet, the imbibition of large quantities of water, the practice of systematic outdoor exercise and the regulation of the bowels by the use of saline cathartics will prevent the concentration and stagnation of the bile, and act as an efficient prophylactic against the formation of gall-stones. But when a calculus once develops there is no drug which has the least solvent effect upon it, and relief from the symptoms it produces will only follow its mechanical removal, either through the bile ducts by natural forces, or through an artificial opening by surgical measures.

The question of an operation in an individual case must be determined by the frequency of the attacks, the intensity of the pain and the effect produced on the patient's mental and physical condition. If suffering is constant; if distension of the gall-bladder is plainly perceptible; if jaundice exists and persists from obstruction to the common duct; if suppuration threatens or is present, then an immediate operation is indicated.

The danger of an operation for gall-stones is about that of an operation for appendicitis. If it is done early, before adhesions occur or pus forms, the mortality is low, if postponed until complications exist, it is high. Delay often converts a safely operable case into a practically hopeless case, and the patient dies, not on account of the operation but despite the operation.

The fact that gall-stones are so often found in autopsies without having made their presence manifest during life is not an argument for non-intervention. Because in some cases the stones lie quiescent and produce no symptoms and the patient does not require an operation is no reason why in other cases, where the stones are less happily located and serious mischief results, an operation should not be performed to restore the health or prevent the death of the patient.

The technique of removing gall-stones depends upon their anatomical location. The following are recognized methods:

Cholecystendysis, or opening the gall-bladder, removing the stone, suturing the incision and dropping the viscus back into the abdominal cavity. This is termed by its advocates the ideal operation. Its advantages are the immediate closure of the abdominal wound and the absence of an external biliary fistula, which is annoying to the patient and sometimes slow in healing. The disadvantages are the danger of peritonitis from leakage of bile into the general cavity; the lack of drainage to relieve the congestion of the gall-bladder, and the fact that no avenue is left for the escape of a stone if one is overlooked at the time of the operation. The method is advisable only in selected cases, where the walls of the bladder are healthy and little inflammation and few adhesions exist.

Cholecystomy, or opening the gall-bladder, removing the stone and sewing the edges of the incision in the viscus to the cut margin of the parietal peritoneum. Its advantages are the provision for the free escape of bile, lack of tension and danger of leakage into the peritoneal cavity, long and efficient drainage to relieve the congestion or inflammation of the vesical mucosa, and provision for the escape of an overlooked stone. The disadvantage is the formation of an external biliary fistula, which may take weeks to close. This may be minimized by using absorbable animal sutures. The method is the one giving the lowest mortality and should be adopted in the majority of cases. If the patient is jaundiced and, in consequence, bleeding is copious, or if suppurative cholecystitis exists and infection is feared, the operation may be done in two stages, the abdomen being opened, the gall-bladder fastened in the wound, and opened several days later after protecting adhesions have formed under local anesthesia,

Cholecystectomy, or freeing the gall-bladder from its attachments to the liver and

adhesions to adjacent structures, ligating its duct and amputating it. The advantage claimed is that by completely removing the gall-bladder—the cavity in which stones usually originate—the remote possibility of their reformation is prevented. The disadvantages are the danger of the operation and the abnormal condition in which the parts are left. For while the function of the gall-bladder is not understood and patients seem to get along very well without it, still it is preferable to attempt to restore its usefulness rather than absolutely to remove it. The operation should be reserved for cases where the walls of the viscus are so friable that no other method can be adopted.

Cysticotomy, or opening the cystic duct, removing an impacted stone and suturing the incision. This is only practiced after failure to return the calculus to the gall-bladder either as a whole or after breaking it up by pressure or by needling. Cholecystotomy should always be done at the same time to relieve the tension and give the duct physiological rest for repair.

Choledochotomy, or opening the common duct, removing the stone and suturing the incision. This should be done when the stone cannot either be forced back into the gall-bladder or forward into the duodenum. Tension on the sutures should be avoided the same measures and for the same purpose as mentioned above,

Cholecystenterostomy, or the anastamosis of the gall-bladder and duodenum, the fistula being preferably established by means of Murphy's button. This method is applicable in cases where an irremediable obstruction exists in the ducts, and restores a channel by which bile can pass from the liver to the small intestines.

Fevers of Southside Virginia.*

By H. C. Beckett, M. D., Scottsburg, Va., Member of the Virginia Medical Association, and also a Member of the American Medical Association.

In the presentation of a subject embracing so much it would be an impossibility for me to present to this Association even a general outline of this important subject within the time allowed me this morning.

The fevers of Southside Virginia embrace a great field for investigation. If I should describe all the different kinds of fevers that are now and have been prevalent throughout this part of Virginia, from the earliest settlements to this time, it would fill volumes. I had hoped to describe all the general epidemics that have prevailed throughout this section, but having failed to get responses from my medical friends, as I expected, I am compelled to omit a great deal of valuable medical history that I had hoped to use in this production.

General epidemics of fevers, as they prevail in other sections of the United States, are not known here. Malaria in all its milder types embraces the great part of the work of our medical men throughout all this section; this part of Virginia being so well watered with rivers, creeks and smaller streams, furnishing great areas of low grounds for swamps. These lands having grown up with all kinds of vegetation in many sections since the civil war, obstructing drainage which gives us great areas for the production of the malaria whose deadly germs do not only live here in these swamps but are wafted in part to the high country throughout this entire section; and I feel free to say that no part of the Southside is entirely free from its ravages.

The air currents are no doubt responsible for the great distribution of the malarial germ in sections where swamps do not exist. The malarial poison is given to the human body by the atmosphere which I believe to be the common carrier of this poisonous germ.

The late Professor Bemiss, of New Orleans, says: "Liability to malarial intoxication is increased in direct ratio to the proximity of points of exposure to places of development, to similarity of level, to situation in the lines of prevailing winds which have traversed the breeding grounds; and lastly to the extent and fertility of the locality of production." Now, this being the case, we can readily understand why the inhabitants of the high country back miles from swamps are also subject to attacks of malarial fevers.

The intermittent, the first form to consider, I find can easily be controlled by the use of a good liver pill for a few days with quinine about thirty grains a day or five grains every four hours. Should a case be chronic in type, I succeed best with "Warburg's Tincture" given very freely.

I frequently give a pill like the following which is a most excellent combination, meeting every indication in malaria after the liver is made active:

℞.

Strych. sulph., gr. iii.
Arsenious acid, gr. 5.
Ferri redact ʒii.

*Read Before the Virginia Medical Society, at Richmond, Va., October, 1899.

Quinæ sulph. ʒii.
Aloes soct. ℈i.
M. et. ft. pil. No. C.
S: One every 4 hours.

This pill is a good substitute for quinine in all forms of malaria in pregnant women and also for any one who has an idiosyncrasy against quinine proper.

The continued and remittent form and its complications which occur most frequently in the latter part of the summer and commonly known as autumnal fever, is the form of fever most prevalent throughout entire Southside Virginia. It is this form of fever that most frequently prevails as epidemic here and so frequently assumes typhoid complications which is often called typhoid or typho-malarial fever. The disease usually sets in with a chill, tongue coated, pulse full and bounding, temperature ranging from 102 to 105, the appearance of the patient suggestive of typhoid fever.

Splenic enlargement is generally formed. The fever is continuous, with remissions more or less marked and continuous jaundice. All these cases vary greatly in severity and much depends on the activity of the treatment. Gastro-intestinal symptoms frequently predominate, or there may be such grave symptoms as delirium, coma, and convulsions. These fevers maintain from nine to twenty-one days, usually a continuous type. Milder forms may end very quickly with good treatment when seen early; but after the disease has been on three or four days I find it very difficult to make the term of fever shorter than nine to fourteen days; and should the bowels become involved, manifesting the symptoms of typhoid: as tenderness, tympanitis, borborygmus, we may expect the fever to continue from twenty-eight to thirty-six days.

My treatment in this form has been to put the liver in as good condition as possible and as soon as circumstances will admit.

I begin to push the great malarial specific, the sulphate of quinine, usually giving five grains every four hours. This is given until the fever subsides. When the quinine is not sufficient to prevent hyperpyrexia, I use the ice-cap and sponge baths, these being my two antipyretics upon which I chiefly depend in the treatment of all fevers. I seldom use the cold water bath because the above is sufficient and more easily managed in the country. I let them have a quantity of cracked ice and plenty of cool water to drink with the room full of pure air from the most favorable surroundings. This course usually overcomes the preternatural heat. When this fever runs very high I very frequently use acetanilid with great advantage guarding its supposed depressing effect on the heart with strychnine, or caffein. There is not so much danger in acetanilid as the majority of professional writers would have us believe. Dr. Broadnax is right in his praise of this most excellent coal tar preparation. Quite a large number of our country doctors use it freely to assist in controlling all forms of malarial fever as well as others, except typhoid in which it should not be used for reasons set forth by nearly all medical writers. I was called to see an old man seventy years of age who was suffering of a severe attack of remittent malarial fever. I left sixty grains of quinine which was to last three days. Soon after I left his wife by mistake gave the whole amount at one dose and his fever through this heroic dose, given by mistake, was entirely subdued and in two or three days he was up and at business again. I have treated hundreds of cases of this type of fever in the past sixteen years of my residence here and nearly all got well. The negro generally overcomes an attack with very little treatment and in half the time of the caucasian.

There are two great principles in the treatment of all fevers that we must observe if we want to save our patients:· 1st, We must fight the preternatural heat and from first to last we must keep the temperature as near normal as possible, 2nd, We must keep the system properly nourished with the best liquid diet from the beginning of the attack, remembering that nearly all the patients who die lose their lives from either one or the other of these two causes.

Typical typhoid fever is not so prevalent in this section of Virginia except probably in the cities where defective sewerage comes in as the chief ætiological factor. Great epidemics of this fever do not prevail here as they do elsewhere. Quite a number of typical cases that have come under my observation were contracted elsewhere and the germs were brought here in their systems, the others contracted it from local causes. In one instance soon after I located here, I was called to treat a family of six members, all adults; there was also a relative visitor from an adjoining county. One after another was taken extremely ill with high fevers until all were sick except the head of the family who was a minister and had to be away from home attending to ministerial work. All six in number ran rapidly into typical cases of typhoid fever. I suspected the water supply which was at once inspected and in the bottom of the well was found a large cloth saturated with blood in a disintegrated condition which

had been thrown in by some unknown person. All affected had been drinking from this well which no doubt produced the becilli typhosus that caused all this trouble. We must watch our wells and other water supplies if we want to be free from this dreaded disease that is yearly destroying the flower of the human race. It kept me busy months to attend this family as complications developed in the different ones affected. The mother and two oldest daughters were bad dyspeptics and a bad form of gastritis developed in all three. The oldest daughter of the three had a severe form of gastritis and besides had been so delicate all her life, and her case being so severe from the beginning, she not being able to retain either medicines or foods to any extent, I at once recognized the fact that I had to make a hard fight for her life. I commenced at once with the bath and kept up the sponge bath all the time, her hair was shaved and the ice-cap applied to the head and enveloped the entire upper part continuously without being moved except to be refilled with ice for six days and nights and she also ate ice freely throughout the attack; the fever by this means was more easily kept under control. She was nourished mostly by enema and inunction; her medicines were given hypodermatically.

The fever in this case was finally subdued by water and ice and she made an excellent recovery. The second daughter also had so severe a form of gastritis during her attack that she had the coffee-ground vomit for several days, and at this juncture we expected her death at any moment. She also made a good recovery and what is especially remarkable about these two cases, neither have ever suffered of dyspepsia since. The mother, son and relative became in a dangerous condition from hemorrhages from the bowels and nose. The third daughter did not get so low. I feel good over all getting well, as this was my first experience in a home epidemic of typhoid. Dr. B. C. Keister, of South Boston, made one consulting visit.

During the succeeding years of my professional career I have had the typhoid to contend with, but the cases were mostly isolated and their cause in most cases could not be traced.

Another interesting case in my practice occurred about twelve years ago, in that of Mr. J. T. L., a prominent tobacconist and merchant of my town. In the fourth week of his case his symptoms became alarming and I suspected peforation of the bowels about to take place. I decided to put the bowels in splint at once with hypodermatic morphia which checked all peristaltic action for five days and at the end of this time I found a large perityphlitic abscess pointing externally which was aspirated and afterwards opened by free incision for drainage. At first opening about a quart of pus escaped containing fecal matter. After this a quantity of pus escaped daily for six or eight weeks until the patient was a mere skeleton, but was always ready for his nourishment. I claim that the timely action of the morphine in this case saved the patient's life. It was necessary for him to wear an abdominal supporter for two years after his attack. His health has been first-class ever since, Dr. H. B. Melvin, of Houston, Va., was with me when the abscess was opened.

I could enumerate other very interesting cases of typhoid that were placed under my care in this section of Virginia, but I must withhold for want of time.

The first important step in all cases of fever is to get the liver in the very best possible condition; to do this I use calomel and salol or calomel and soda for several days and then I come on with sulpho-carbolate of zinc in elixir of lactopeptine. I usually give four grains of zinc every four hours, and begin the use of water and ice freely as may be necessary to prevent hyperpyrexia. I economise all my patient's strength from the beginning by keeping him still and quiet. I give him all the pure air I can and all the good water he will drink. I prescribe from two to three quarts of good sweet milk every twenty-four hours making it the food basis. I now work hard to keep the temperature as near normal as possible and work equally as hard to keep the patient's system well sustained with an ample supply of nourishment. In addition to the milk I often supplement in the latter stages Colden's Leibig Beef Tonic or Beef Peptonoids. This beef tonic is most excellent for the weak stomach at this stage. I frequently use alcohol with egg and milk in the latter part of the disease.

I commence strychnine about the tenth day to sustain the heart and nervous system and to act as a general tonic and continue its use freely throughout the entire attack. Hot turpentine stupes to the abdomen in tympanitis are very beneficial and if necessary I give ten drops of turpentine mixed up in mucilage of acacia every four hours internally in this condition.

I usually control hemorrhages with opium and acetate of lead. I have never used great abortives—the Stradbridge treatment or visholine. The sulpho-carbolates and salol and calomel have done me such good ser-

vice that I am willing to continue them until I am fully convinced of better remedies.

We will lose a genuine case of typhoid occasionally in spite of our greatest efforts; however, we should not let one die from starvation or from preternatural heat, when we have so much food and water.

Now, as to scarlet fever; that is a rarity, and when we have a case it is in a mild form. In my seventeen years of practice here I have treated only five cases and they were not severe. All soon recovered, and in each case other members of the family were more or less exposed before I isolated the cases, and no one else contracted the disease. There have probably been epidemics of it in Danville and other towns of large populations throughout this section.

The Vagaries of Fevers As They Occur in the Mountains of Virginia.*

By Dr. R. M. Wiley, Salem, Va.

From the time of Hippocrates to the present advanced age in our profession, we find from the early records of medicine the *nature* of fever has afforded an ample field for discussion. Indeed, when we take a retrospect of the doings and teachings of our ancient brethren, with their scanty knowledge of anatomy, chemistry, physiology, pharmacy and other branches, and no scientific way of investigating the secretions and excretions of the organism, we are amazed at the ingenuity of their theories and we marvel much at their success. Fortunately, and happily for us, the advances in our profession, the use of the clinical thermometer, the microscope and the revelations of the germ theory has placed scientific medicine upon such a high plane as to leave no cavil or doubt as to nature or etiology of most fevers. Of these it is not our province to speak, we shall content ourselves therefore briefly to refer to some of the peculiar and distinctive vagaries as we have seen them in the mountains of Virginia. Fevers that run an irregular and erratic course, with no distinctive characteristics other than exaltation of temperature, etc., classify them. Many cases are idiopathic, but we have seen epidemics of fever at same seasons (usually from middle of July to November) and often several cases in the same household and family with no distinctive feature in any two cases exactly alike, yet the thermometer showed that all had a temperature ranging from 101 to 105. One would be taken with severe vomiting, and so persistent was the nausea, that the stomach would tolerate no medicine or food and often for several days the patient was fed per rectum.

As fever subsided the nausea ceased, then by a little symptomatic medication together with sponge baths of diluted alcohol, the case would yield. Other than the nausea and elevation of temperature, there was no distinctive feature save tenderness over region of stomach. About the same time another member of same household would have unmistakable typhoid fever, and it would run its course as such. In our town and vicinity during the summer and fall of '96, our physicians attended scores of cases of fever with all sorts of vagaries, all of which recovered except three cases of genuine typhoid. The gastric, remittent, intermittent and all the different types of which there were many, were very amenable to treatment, and whilst some were sick from six to eight weeks, with often a temperature of 105, yet all recovered. Firmly indoctrinated in the modern theory of fever and a firm believer in germs I have often been amazed at the many vagaries fevers often assume. There is often no rule to guide us, no distinctive feature of lesion, following no germ theory or line of demarkation, except as shown by the thermometer, remittent for a short time, then continued, and sometimes ephemeral. It has sometimes happened that in high altitudes, upon the mountain sides, where there seems to be no nidus for malarial germs, where the air and water are pure, and a cleanly environment ought to insure freedom from malarial influence, we have occasionally seen cases of which ague are the signs, marked chilled and other concomitants of intermittent fever. We have seen this in patients who have not as far as we could learn ever lived in a malarial district, and in individuals who have not previously had malaria. It is usually slight but occasionally severe.

The paroxysm is often as well marked as malarial cases are anywhere that we might reasonably expect malaria to occur. The symptoms are often identical, beginning often with a sense of coldness running down the spine, the nails turn blue, the features become pale and shrunken, pulse small and rapid.

We have seen these symptoms in quotidian, tertian, and quartan forms, and yet here in the mountains it has been my experience that quinine has no appreciable effect upon this fever, when given as antiperiodic, or indeed upon any of our fevers, either in anticipating, retarding or prevent-

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ing the paroxysm. They sometimes cease with little medication other than regulating the secretions, and cure is often spontaneous though it sometimes happens these various forms drift into regular continued fever. which from my observation more often happens in the quartan form which has the longest cold stages, than in the other forms of this peculiar mountain intermittent.

We have endeavored to elaborate these irregular and peculiar intermittents of the mountains because it has been doubted whether any case of idiopathic intermittent fever can occur, without the agency of malaria.

We now reach the very difficult problem of deciding the nature of a fever produced always as we have been taught, by malaria, and yet it does occur in non-malarial localities of which all the signs of ague are the symptoms. In this presence we shall make no speculative attempt at its explanation and are compelled to leave it as an unexplained vagary, yet a clinical fact of not uncommon frequency in the mountains of Virginia.

We have, too, in this locality dumb or masked ague and intermittent neuralgias exceeding in frequency of occurence, so far as the writer has opportunity of observing all other forms of this disease collectively. The branches of the fifth pair of nerves are certainly more frequently than any other ones affected by periodical neuralgias. Their branches and those of occiput and sciatic nerves have been observed in non-malarial districts to be the seats of quotidian, tertian, double tertian or quartan neuralgia.

In the epidemic forms of fevers as we have seen them in the mountains of Virginia frequently the most careful search for a cause has failed to reveal their etiology.

The period of invasion and form and characteristics are vague and indefinite.

Sometimes the invasion of the malady is short, a few days or a week at most, usually it is much longer, a month or five weeks, sometimes before the bed is taken and a physician called.

Patients have called at my office for medication with a temperature of 103 or more and great exhaustion.

When told that they had fever and ought to be in bed, and upon liquid diet, they often expressed surprise, and said they had a good appetite, and could work, although they felt weak.

In such cases the sequel showed them to be pernicious fevers whose recovery happily brought about, was slow and tedious, as "walking cases" generally are.

The eccentricities and vagaries of the epidemic mountain fevers are difficult to explain, indeed, to us are a myth.

What has impressed us particularly, is that there should be so many different types of fever as we have seen in same household and vicinity all occuring about same time and season.

With many there is no regular crisis. The day upon which the fever commenced can seldom be ascertained, and the recession is often sudden, and convalesence speedy.

We have sometimes seen in patients recovering from gastric fever, peritonitis suddenly without any assignable cause, supervene, with neither chill, vomiting, nor frequency of pulse, but with *only* tenderness of the abdomen on pressure, with disturbed respiration, and distention of the abdominal wall, but no *pain* except on pressure, and yet prove fatal in a short while after tenderness of abdomen was first complained of.

This leads me to believe serious inflammation may be going on, and even proceeding to a fatal termination, with a quiet pulse and soft skin.

From our short experience we have learned if there is *abdominal tenderness*, in any fever, even if unaccompanied with other distinguishing signs of peritonitis, it should always be treated with decision.

Another very puzzling and unusual feature of our remittent fevers is the intestinal hemorrhage, generally slight but at times quite alarming but never fatal in the few cases that have come under my observation.

Of course we know serious hemorrhages may occur from mucous surfaces in cases of pernicious malaria, but we have no right or reason to expect intestinal bleeding in the ordinary billious-remittent.

These many vagaries might be explained by the facts, as Osler states, "That this type of fever (remittent, and this is the type that constitutes the vast majority of our mountain fevers) is associated with the presence in the blood of the æstivo-autumnal parasites, and organism the length of whose cycle of development is probably subject to variations, while the existence of multiple groups of the parasites, or the absence of arrangements into definite groups is not infrequent," and as he says, "The symptoms are therefore as might be expected, often irregular."

But this seemingly very rational explanation fails us, as the "Therapeutic test," quinine, has no appreciable effect either upon the temperature or ultimate course of the disease.

It may be urged that we are often mistaken in our diagnosis, for authorities say, "That if the practitioner will take to heart the lesson that a fever which resists quinine is not malarial he will avoid many errors of diagnosis."

But we can exclude the other common type, typhoid, by reason of the fact that these cases lack the characteristic marks of typhoid, to-wit: the typhoid temperature and spots to say nothing of the general aspects, diarrhœa, prostration, epistaxis and delirium.

Again, the urine does not respond to Ehlrichs diazzo-reaction, which I believe has now come to be regarded as a very valuable accessory sign.

Of course we recognize the fact that were we in a position to avail ouselves of the blood tests, the question as to whether the infection was caused by the plasmodium malaria, or the bacillus of Eberth, or a mixed infection, would be readily settled. But the average country doctor has no such facilities.

Now in conclusion, imperfect as I know my paper to be, to many it will appear more imperfect because I offer, nor can I offer, any rational cause for many of the vagaries mentioned. They are so, because my observation and brief experience confirm their verity.

I have no scientific explanation to give as the *cause* of the vagaries.

I am as vague and indefinite as the fevers are. Indeed, I may suffer from their peculiar epidemic predisposition.

Whether physicians in other localities have observed these "out of line fevers" I know not, nor do I know that these vagaries are peculiar to mountain fevers. We think it possible they are, for in our short career we have not witnessed them elsewhere in such pronounced and emphatic degree.

It may be they are largely due to atmospheric vicissitudes, so common in mountainous regions.

And for a better explanation of the cause of all these vagaries referred to we have tried to persuade ourselves that in high altitudes, especially where the nights are very much cooler than the days, we may reasonably expect, from the driving back of the transpiration, and thereby blocking up the emunctories, and especially that greatest of all the emunctories, the skin, there results from sudden lowering of temperature and retention in the blood of effete material that should be eliminated by the excretory organs, congestive fevers, remittent fevers, with their various vagaries.

This may be no explanation, but if my elder brethren can give a better I shall be content and glad to hear from them.

Penetrating Injuries of the Eye-Ball.†

By John P. Davidson Richmond, Va., Professor of Diseases of Eye, Ear and Throat, in the Medical College of Virginia.

Definition: It is not intended that this paper should embrace any class of injuries except those which penetrate into the eye-ball, or perforate all of its coatings.

The wounding substance may be withdrawn, remain in the eye, or emerge at some point other than that of entrance. Other traunatic conditions, such as contusions and concussions, although not rarely rupturing all of the ocular tunics are accompanied by characteristics peculiar to themselves and should be treated accordingly. Nor is it intended to discuss the fearful and much dreaded complication known as sympathetic ophthalmitis any more than to point out those injuries which are most significant in precipitating such a disaster.

The physical and chemical characters of the wounding body are of more concern to us than is the variety of foreign bodies which have inflicted such injuries. It is plain that wounds which have been caused by sharp-edged articles are accompanied by less reaction, and will heal more kindly than those produced by a substance with an uneven irregular surface which will cause a wound of a more or less lacerated character. The chemical composition of the wounding material is of less moment except when the foreign substance remains in the eye. Any material which is subject to chemical action by being kept constantly in contact with the fluid elements of the body may produce additional reaction to that of the primary injury though it may not manifest its action until some subsequent period. It is claimed that copper is more liable to undergo chemical change than any other substance, or at least its action is more violent. I have to confess that I have not observed this, though I have several times seen copper in the interior of the eye. Some varieties of stone also cause a chemical reaction. Those reactions which I have had opportunity to observe have invariably been due to iron or steel, and it is impossible to state how much of the reaction in these cases was due to

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the mechanical irritation produced by the foreign body.

Nature of the Wound: In order to estimate as far as possible the gravity of the injury it will be necessary to make certain clinical divisions of the globe. These regions may be designated as follows: 1st, Corneal; 2nd, Ciliary; 3rd, Scleral.

Under the head of corneal wounds we should class any injury from that of mere perforation of the cornea with escape of the aqueous to one of sufficient depth to involve the iris, lens and even the vitreous body, so long as it does not extend laterally into the confines of the ciliary region.

Under the class of ciliary injuries should be those which invade the region beginning about two lines beyond the periphery of the cornea and extending one-half inch or more from it. Here, again, the wound may be of sufficient depth to involve the iris, lens or the vitreous structure.

So we find in both of the above-mentioned classes we may have to encounter an incarcerated or prolapsed iris, a swollen and cataractous or, perhaps, a dislocated lens and further still prolapse of the vitreous humor with partial loss of it.

The third class, those known as scleral injuries are those located at any point in the globe posterior to the ciliary region.

Symptoms, Physical Signs and Diagnosis: When the corneal tissue is the seat of injury the obliteration of the anterior chamber together with the apparent corneal wound are sufficient evidence within themselves.

Blood in the anterior chamber is indicative of injury to deeper structures, usually the iris or ciliary body. When extravasations of a small quantity of blood occur it will settle, as pus does, in the lower part of the chamber, but again, it may be sufficient to occupy seemingly all of the aqueous chamber and prevent any opthalmoscopic view of the interior of the eye.

Small punctured wounds in any region other than the cornea may be hidden by ecchymosis of the conjunctiva and subconjunctival hemorrhage. Perforation of the globe under such circumstances can be detected by the lowered tension and by ophthalmoscopic examination, since injuries of this character are practically always accompanied by some degree of intra-ocular hemorrhage.

Blood in the vitreous manifests itself by a reddish reflex from the pupil, or when slight extravasations into the vitreous occur it is seen with the ophthalmoscope as a dark cloud, or dark floating membranes. When wounds of greater extent occur and are of sufficient size to allow the prolapse of subjacent intra-ocular structures, their gravity is recognized at a glance by the dark pigmented appearance of the protruding uveal tissue.

The character of the prolapsing tissue varies with the extent and location of the lesion and may be either iris, ciliary body, choroid, or further still, the lens or vitreous. The degree of impairment of vision furnishes little evidence of the nature and extent of the injury.

The importance of determining whether or not there exists a foreign body in the eye cannot be too strongly emphasized.

In deciding this question the nature of the wounding body should be taken into consideration, since such articles as the tine of fork, or any sharp pointed instrument or weapon would not be likely to leave a particle in the eye.

Substances which are usually retained are those which have been encountered while in rapid motion and have been chipped from a hammer in the act of striking, or a drill in the act of being struck. If the foreign body passes through the cornea and continues its course into a deeper region, its passage through the iris and lens may be traced, and when it does not lodge in the anterior chamber, iris, or lens, we frequently can locate its position in the vitreous, or choroid, with the opthalmoscope, when seen immediately, or within a few hours after the accident. But the injury produced to the lens causing it to become cataractous, together with disorganization of the vitreous with exudations into this structure will soon surround the foreign body sufficiently to obscure it from view. It should be remembered that the foreign body may pass entirely through the eye and be located in the orbit behind. This is particularly characteristic of gunshot.

If the foreign body is some form of iron or steel its presence can usually be detected by the employment of a powerful electromagnet.

It is stated that patients experience painful sensation when they are approached to the large magnet, this should be expected and usually does occur. As a matter of fact, however, the absence of painful sensations must not lead us to conclude that no foreign body is contained in the eye and thereby cause us to overlook valuable information which may yet be obtained by further use of the magnet.

When the foreign body is contained in the lens substance—a tissue having no nerve supply—and also where it has remained in the vitreous sufficiently long for the enveloping exudations to become organized, the force of the magnet is not sufficient to bring

the small particles of iron in contact with any sensitive structures and, therefore, the patient will experience no unusual sensations.

Further, we should not be controlled by the statements of the patient. The eye should be cocainized and approached to the point of the large magnet which should be carried over every point of the anterior surface of the globe, at the same time watching closely for bulging at some point. At times this bulging is so slight that we have to make repeated trials before we can conclude positively that it does take place, since it occurs in conjunction with no other symptom. Suddenly turning the current on and off will generally give evidence of more bulging than occurs with the constant application of the magnet.

I have several times seen bulging demonstrated after men of great experience had determined that the eye contained no foreign body.

Prognosis.—It must be admitted that occasionally it is impossible to predict whether a given wound is sufficient to cause the loss of the eye, or whether it will result in less serious consequences. Uncomplicated corneal wounds give the best prognosis unless accompanied or followed by infection. It is not unusual to see simple perforations heal without any impairment of vision and the same can be said for some cases when the foreign bodies are extracted from the anterior chamber and also when the lens is extracted containing the foreign body. When the iris and lens are implicated and the ciliary body escapes injury, we may yet find it practicable to try to save the globe with some vision.

Wounds located in the ciliary region are always to be regarded as of grave significance, not only to the injured eye, but also to its fellow, and as a rule such wounds entail the loss of the injured eye. To this rule, however, there are significant exceptions. Wounds in the scleral region are, perhaps, not as promising as simple corneal wounds owing to excessive loss of vitreous, to intra-ocular hemorrhage and further to the significant fact that infection is more likely to take place since the vitreous furnishes extraordinary inducements for bacterial growth.

If, however, the injury is located in the region of the macula the loss of vision may be more complete than in almost any other injury though the appearance of the globe may be perfect.

Infection may occur in any injury as a result of the nature of the material carried by the wounding substance, or infection may take place subsequently owing to our inability to keep this part of the body surgically clean.

When a foreign body is allowed to remain in the vitreous, it will usually cause the loss of the eye, though there are cases in which the body becomes fixed by the organization of the exudations around it, and again we see them rendered stationary by being lodged in the choroid. Lead and glass are the substances which are best borne, and eyes may last indefinitely with these substances contained in them. The moment vision is lost in such cases the eye should be enucleated to prevent the danger of sympathetic inflammation.

While I believe it wise to remove foreign bodies when it is possible, yet when it is evident that the amouut of injury produced by an attempt at removal is sufficient to demand a subsequent enucleation, we are justified in pursuing the expectant plan of treatment.

When we are confronted with the fact that we do see useful eyes containing foreign bodies, and the further fact, that useful vision does not result when such bodies are extracted from the vitreous, we are compelled to adopt a certain degree of conservatism in regard to their extraction.

Saving the globe with normal tension is as much as can be expected when we resort to extraction. Out of about twenty cases of foreign body removals which I have observed I have never seen useful vision result, and those cases with a degree of vision left became blind utimately by connective tissue formations in the vitreous.

Treatment.—For convenience it will be expedient to divide these injuries into four classes for treatment, viz.:

First. Those to be treated expectantly, including those cases containing foreign bodies when extraction is not indicated.

Second. Those in which enucleation is clearly indicated.

Third. Those in which some operative intervention upon prolapsing intraocular structures is indicated.

Fourth. Those which contain a foreign body when it demands extraction.

In a brief paper it is not possible to describe in detail the management of each of these classes of cases, though general indi cations for each class may be briefiy stated.

Such remedial agents as cleanliness, heat, cold, mydriatics and myotics may be mentioned at this point.

The antiseptic solutions employed should be bichloride of mercury and boric acid The latter is always preferable when an attempt is being made to save the globe and when the solution can gain entrance into it, since the interior of the eye does not bear

mercurial solutions. If the eye is surely lost or infection is present, the bichloride solution is desirable.

With reference to the application of cold, it is often debatable whether or not it should be applied by means of iced compresses, or whether such eyes are safer under a bandage. It is true that the application of cold for the first twenty-four to forty-eight hours will lessen the degree of reaction, but the danger of infection is increased when the eye is uncovered, and healing will progress more slowly when the eye is being manipulated by the application of the ice pads and when it is also being moved by the action of the fellow eye. When we resort to the method of bandaging it is always wise to bandage both eyes, the evident reason being the additional quiet which is secured by the prevention of movement of the fellow eye. At the end of forty-eight hours when some degree of healing will have been secured, the application of moist heat should be employed. These applications should be made by means of hot compresses taken from a boric acid solution at a temperature of 110 deg. or thereabouts and should be applied nearly constantly. These pads should be frequently renewed.

In regard to mydriatics, I believe it a safe rule to state that mydriatics, preferably atropine, are indicated in each class of cases except that in which enucleation is performed. Atropine should not be employed with the expectation of its ever withdrawing an iris from its incarceration in the cornea. When such an effect is expected of it we are invariably disappointed. In fact it is difficult to perceive why this should be claimed for it. Still mydriatics have certain beneficial effects in that they set at rest the uveal tract, thus necessarily lessening the blood supply, and, thereby mitigating, in a measure, the inflammation which results from the primary wound.

In regard to myotics, I believe that a good rule with practically no exception is that they should never be instilled into an injured eye.

It is even more fallacious to maintain that eserine will ever relieve an incarceration at any site in the cornea, than to claim that atropine does. And when we consider the fact that eserine stimulates the functions of the uveal tract and irritates these structures, causing a hyperemia, it is marvelous to think that any authority would advocate its use.

The administration of the iodide of potassium should be condemned here as in all other acute inflammations of the eye.

Patients with such injuries should be confined strictly to bed. I have repeatedly seen reaction take place when they were allowed up.

It is needless to say that the general condition of the patient should not be neglected. The usual anodynes may be employed to secure comfort. Leeches may be of service, yet their good effects are questionable.

The first class of cases embraces those injuries to the cornea or other regions which are not accompanied by incarceration or prolapse of intraocular structures, and also those cases containing foreign bodies when it is deemed inadvisable to extract them. Rest in bed, antiseptic irrigations, mydriatics, a bandage, or cold applications, and subsequently warm applications are what such cases demand.

The second class of cases, those in which enucleation is indicated, are those which offer no probability of any degree of vision being saved. Eyes injured to the extent of vision being destroyed will, if not enucleated, cause the patient great loss of time and endless suffering, and they will rarely look as well as artificial eyes. But by far the greatest reason for enucleation is the danger of sympathetic ophthalmitis in the fellow eye. Besides the disfigurement which enucleation produces, the arrest of orbital development in young subjects is offered as a reason against such a procedure. The greater frequency of sympathetic inflammation in young people would seem to teach us to ignore the probable arrest of orbital dexelopment, and surely it is questionable whether or not a sunken globe will in any way assist the proper formation of the orbit. When blindness has been caused by a wound in the ciliary region it should always be removed unless it has been complicated by suppuration. A shrunken globe which is the result of an infective process is not as likely to give rise to sympathetic inflammation as one with a more intact uvea.

The presence of infection in an injured eye gives rise to a disputed question in regard to enucleation. While I am aware of the weight of authority against such action, nevertheless I believe that such eyes should be removed at any stage of its course of inflammation rather than be allowed to cause the patient weeks of time and suffering. If enucleation is carefully and properly performed, it is difficult to see why the dangers of meningeal inflammations are increased, and even why they are not prevented. When meningeal complications have occurred, we would be prompted to believe the meningeal complications were present at the time enucleation was performed. In recent cases the time for enucleation is the moment that it is decided

that vision is hopelessly destroyed regardless of the stage of inflammation.

The third class of cases, those in which prolapsing intra-ocular structures have to be excised are decidedly the most difficult to handle. While there are those who advocate an expectant plan of treatment in these cases, yet I think there is little doubt but that excision of prolapsing uveal structures is the proper procedure. The time at which this should be done is within the first twelve hours if possible. If from any cause early excision has not been done, it should be postponed until the eye has become entirely quiet, perhaps several weeks.

Eyes which have uveal structures incarcerated and healed into the fibrous tunic are very much more susceptible to exposure, &c., and are seen to become easily congested, tender and more painful than those which have not been allowed to heal in this condition. They are much more susceptible to attacks of iridocyclitis when they are likely to develop secondary glaucoma and sympathetic inflammation.

When the iris is prolapsed it should be withdrawn before excision in order that its free edges should retract wide of the wound to prevent adhesions or subsequent prolapse. Small prolapses of the ciliary body may also be excised. Extensive prolapses of the cillary region demand enucleation. The lens, even though it may be injured, should not be removed unless its position is such as to interfere with the toilet of the wound, or unless its swelling gives rise to such reaction as to demand it. It is decidedly better to remove the lens through a linear section in the cornea when the reaction has subsided.

Vitreous should be excised with the scisors close to the lips of the wound.

When wounds are sufficient in extent to require sutures, they should be passed through the conjunctiva only. Corneal and scleral sutures should never be taken.

The fourth class of cases, those in which the extraction of the foreign body is demanded, present such variable aspects that the briefest mention of them would prolong this paper beyond reasonable length. Various operations with the portable magnet, &c., would require description, hence this will be deferred for a subsequent paper,

Hygiene of The School Room.*

By Hugh McGuire, M. D., Alexandria, Va.

Notwithstanding the fact that the Virginia schools, both public and private, enjoy a well deserved reputation for their thorough teaching and comparatively good hygienic conditions, there is still much to be desired in the latter respect, and the Medical Society of Virginia could not have selected a more appropriate subject for general discussion, or one of greater interest to the public and profession than on which we are engaged this morning. I sincerely hope the members of the society will give their earnest attention to the reforms and changes suggested, and that the discussion of the question will arouse interest throughout the State and result in many much needed improvements. No topic should demand greater consideration than the health and education of the coming generation.

The portion of the subject assigned me is a very important one, and I will limit my remarks to it and not encroach on the ground which has already been so well covered by papers entitled "How Best to Promote the Health in every way of our Children in the Public Schools," and "Care of the Eyes of School Children." I will deal only with "Hygiene of the School Room."

Before taking up the subject proper, it will not be inappropriate to say that the superintendents and teachers, as well as trustees and members of school boards, should be carefully instructed in the laws of hygiene and sanitation, and thus be able to protect those in their care. The salaried officers should be rigidly examined on these subjects before they are eligible for appointment. A course in hygiene should also be given to the more advanced scholars.

The day will come, and, for the sake of those in the schools, it can not come too soon, when every school will have its consulting physician, whose duty it will be to see that proper health rules are made and observed, and that the grounds and buildings are kept in a sanitary condition. Besides inspecting the premises he will be required to examine the teachers and pupils at stated intervals. It is a shame that children without vaccination, or those suffering from contagious disease, are allowed to endanger their companions, or that those with bad eyes or weakened constitutions are ignorantly allowed to injure themselves.

The school building itself will be first considered. When it is located in a sparsely settled community it may contain only one room; when it is in a prosperous town or city, it will often be a handsome structure with numerous apartments for its various classes. In either case care should be taken that it be located with a view to

*Read before the Virginia Medical Society at Richmond, Va., October, 1899.

having the best possible hygienic surroundings and a good light. When possible the school should be on an elevated and sloping site. This not only affords the best light for the study rooms but insures good drainage for the ground which should surround the building.

Every school, whether situated in the country or city, ought to have its playground. It should be fitted up with simple gymnastic contrivances and every means taken to encourage the children to exercise. That all work and no play makes Jack a dull—as well as an unhealthy—boy is a true saying.

I am firmly convinced that the study hours in most of our schools are badly arranged and too long. A child's mind should not be too constantly employed. A long recess is much better both for the children and teachers, and I heartily approve of the system in use in some schools of allowing a rest of two hours for dinner between the morning and afternoon sessions. The younger children should only attend the morning session and even then should be allowed fifteen or twenty minute's rest every hour or so.

I wish also to express my disapproval of requiring school children to do home study besides their school work. Many schools employ their scholars six hours or more during the day and require them to study several hours more at home during the evening. Nothing could be more improper than taxing the undeveloped faculties of a child in this way. It gives them a larger number of hours work a day than the United States government and most of the banks require of their employees. Home study should be abolished. The scholar can master all that is necessary, and certainly all that he is physically and mentally capable of during school hours.

It seems almost needless to remark that the sewerage at a school should be perfect. The closets for the pupils, whether in the city or country, should be kept scrupulously clean. The plumbing in the city schools should be examined daily and repaired promptly when necessary. The boxes in the country closets should be freely limed and regularly and frequently emptied. It is too often true that these matters are outrageously neglected.

The drinking water is also a matter of primary importance. It should be obtained from a good source, and when there is any doubt about its purity it should be boiled. The water should not stay in the heated and dust laden atmosphere of the school room, but should be kept out of doors or in the hall.

The school room should be furnished as simply as comfort will permit. Curtains, draperies and carpets ought never to be used. The floor should be covered with oil cloth or left bare. The walls should not be papered. A painted surface, which is dull and does not reflect light, is best, but, when economy has to be considered, colored white wash or calcimine does almost as well. Grey or buff are the most desirable colors.

The desks should be arranged so that the light will fall from the left and back or right and back, never from the front. It is also important that the desk should fit the child and that he should not be obliged to adopt on unnatural posture. It is unfortunate that more attention has not been given to this point and that in most, if not all of our schools, a desk of the same height is given to all of the scholars. The larger ones are thereby compelled to assume a stooping position, and the younger children have their books and papers too close to their eyes.

After all that has been written on the subject it should not be necessary to again emphasize the necessity of good light in the school room. Many of the buildings are, however, still very deficient in this respect. The windows, for a modern school house, should be large and numerous and constructed with the idea of giving both ventillation and light. They should extend from the ceiling of the room to about four feet from the floor, and the total space occupied by them should be at least equal to one-fourth of the floor area. Every nook and corner of the room should be well lighted. The windows should be furnished with shades, buff or dark green in color, which can be arranged so as to allow the light to be admitted from either the upper or lower sash.

I am glad to note that slates are rapidly being discarded. The change should be hurried now that paper is becoming so cheap. I should also like to see the blackboards go. A chalk laden atmosphere is any thing but beneficial to the children. The boards seem a valuable aid to instruction, however, and, until something less injurious is introduced, the best we can look far is that they be kept cleaner. The board and chalk tray, as well as the floor of the room, should be swept and washed daily and the chalk dust not be allowed to cling to the boards and fill the trays from one session to another as is so often done.

The proper heating and ventilation of the school room are most important hygienic questions. It will not require a scientific demonstration, however, to convince the teachers who shares the room with the

scholars of the importance of keeping it at a pleasant temperature, so, except so far as it concerns ventilation, little need be said about the heating. In passing it is well to remark, however, that school rooms are more often over than under heated.

I do not think I exagerate when I say few of our school houses are properly ventilated, and that few of our school officials seem to realize the great importance of ventilation. The following extract from an article by Dr. John S. Billings might be sent to every school board in the State with profit:

"Most persons of average cleanly habits in this country would object to being compelled to wear under-clothing that had just been removed from the body of another man, or to use another person's tooth brush, or to eat food that had been partially masticated by another. They do not, however, often object to drawing into their noses, mouths and lungs air that has very recently been inside another man's body."

The object of ventilation is to reduce the impurities caused by respiration to an extent that they will not be detrimental to health. To effect this the external air must be constantly taken into the room and a corresponding quantity of foul air expelled. In this way the harmful products of respiration are, if the ventilation is sufficient, so diluted as not to be injurious to health.

In examining a building to see that it is sufficiently ventilated it is necessary to have some means of measuring the impurities caused by respiration. For ordinary purposes the sense of smell is all that is needed, for, if there is no disagreeable odor to a person entering from the outside, the air can be considered fit for breathing. Some years ago, however, Dr. Parks introduced a more exact method for determining the impurities. He suggested that as the amount of carbonic acid in the atmosphere is in direct proportion to the amount of organic impurities, it might be used as an index, especially as the carbonic acid is very easily measured. He estimates that the average out-door atmosphere contains four parts of carbonic acid to ten thousand parts of air. He also found that when an atmosphere had been in use long enough to contain over six parts of carbonic acid to ten thousands of air it became injurious. When eight or ten parts are present it smells close and stuffy, and when a still larger amount is present it becomes foul and offensive. Some slight defects have been found in his theoriea. It is now known that the carbonic acid and organic impurities are not always in direct proportion to each other. Cellar air may, for instance, contain a large amount of carbonic acid and but few impurities arising from respiration. His method is still, however, in general use and regarded as a good working rule.

The amount of fresh air required for a room depends on the number of people who are to occupy it and whether it is to be occupied constantly, like a hospital ward, or only for a few hours at a time. It has been found that for school room purposes at least 2500 cu. ft. of fresh air must be supplied for each person every hour. It is important therefore in building the school room to have a clear idea of the number of pupils it is to contain and to make it large enough to allow the admission of the required quantity of fresh air without causing unpleasant draughts. In building it must be remembered that lights and fires also consume oxygen and due allowances made.

Ventilation is caused by the difference in weight of cold and hot air. Hot air is lightest and tends to rise towards the ceiling, or to escape through the chimney flues, while the fresh, or colder, air stays near the floor. Means should be devised, therefore, to allow the heated and contaminated air to escape at some point near the ceiling, and for the entrance of fresh air near the floor. A great deal of air usually enters under the doors and window sills, and in country schools this is often sufficient. When more is needed for small buildings it can be brought in by an air box placed beneath the floor, one end opening to the outer air and the other beneath the stove, which is surrounded by a jacket of tin to force the air to ascend along its heated sides. An opening should also be made near the ceiling to allow the escape of the upper air.

Another simple plan for ventilating a small school room is to lower the upper window sash a few inches and to close the opening made at the top with a board. This will leave an opening between the sash which, while allowing for ventilation, will not admit draughts.

The large school buildings found in cities need a more elaborate system of ventilation.

Most of these buildings are heated by furnaces and flues, and registers are used. Fresh air then enters through them and it is only necessary to provide means for the escape of the foul air at the ceiling. When this system is used care must be taken that the flues are of sufficient number and size. The usual rule is to allow twenty-four square inches per head, or one square foot of register surface for each six occupants.

When flues and registers are not used, other methods for introducing fresh air will be required. One of the best plans is to bring it in so as to surround and be warmed

by the stoves, radiators or back of the fireplaces.

Before concluding I wish to refer to the danger existing to the school as a whole from individual scholars.

The Virginia School Laws, issued by the Board of Education, contain very few and very poor rules relating to the preservation of the health of the teachers and pupils. For instance, though they require that "Persons suffering with contagious diseases shall be excluded from the public free schools while in that condition," they say nothing prohibiting the well members of the afflicted family from attending school, nor do they require that the house be thoroughly and intelligently disinfected before the children are allowed to resume their attendance. They should, of course, require a physician's certificate. testifying that the child has entirely recovered and can not convey the disease, and that the house, furniture and clothing have been disinfected by the most approved means.

So many contagious diseases commence with sore throats that it would be better to require children suffering with them to stay away from school until they can obtain a physician's certificate saying the throat trouble is not contagious.

Children with skin eruptions of all sorts should also be denied the privilege of attending school until the same conditions are complied with.

If by ill fortune a child with a contagious disease has mingled with the other scholars, every pupil and teacher should be kept under close observation until the incubative period has passed, and the school room should be disinfected. For the latter purpose I prefer formaldehyde gas and solutions of bichloride of mercury.

The Virginia School Laws are also very remiss in their rule regarding vaccination, which reads: "No pupil shall be admitted unless they have been vaccinated; provided, that the operation of this clause concerning vaccination, may be suspended in whole or in part by the school board of any city or county." This gives the school board entirely too much power. As important a procedure as vaccination should not be left to the fanaticism or ignorance of school boards. It should be made compulsory.

Children should not be allowed to enter the public schools until they have undergone a physical examination by a competent physician. This examination should determine whether his entrance will endanger either the health of the applicant or that of his fellow pupils. There are many instances where the confinement attendant upon school duties has shortened the life of a weak and puny scholar, and thousands of cases where a consumptive's presence has been the means of infecting strong and healthy children. These evils can and should be remedied.

In conclusion I wish to say, and it is already only too apparent, that my paper does not begin to cover school hygiene. I trust, however, that the discussion which is to follow will make up for my deficiencies, and that enough interest will be forthcoming to force the adoption of many much needed improvements.

Some Ætiologic and Therapeutic Facts Concerning Eczema.

By Edward B. Jackson, M.D., Medical Director Sour Lake Springs Sanitarium.

Causes.—It is met with at all stages of life, from the teething infant to toothless old age, and may probably be more common at these respective ages, insomuch as errors of diet are in the old and young more frequent. It is often the result of stomach derangement. Shell fish, wheat cakes, and oat meal will not infrequently develop a case in those having a constitutional tendency to the disease. So also exposure will to great heat or cold. Stokers, furnace and foundrymen are examples- Overwork and mental anxieties may develop it. Cases due to trophic impoverishment are examples. Local irritants may cause an outbreak. Washing in hard water, applications of plasters. liniments and pungent embrocations are examples. A Turkish bath has been known to produce quite a general crop of papules and vesicles. Worms in the intestinal tract—either the lumbricoides in children or teniæ in adults —are factors of irritation which may be the origin of an outbreak.

In the gouty subject, where the intestinal canal, as well as the blood, is usually loaded with excoriating detritus, such as toxines and toxalbumins, (the products of fermentation and putrefaction of unappropriated food,) eczema is not uncommon. The elaboration and retention of such irritation will furnish a sure means of perpetuation of the disease until through proper correction of the bowels all refuse materials are daily expelled. Therefore, constipation is a never ending source of the disease.

Symptoms.—There is *always* itching, accompanied with the ordinary signs of inflammation, namely, swelling, heat, redness, et cetera, followed by papules, vesicles and, may be later on by pustules. Later the patch dries up into a scaly crust,

which, in due course of time, drops off, but only to be followed by a fresh outbreak unless the alimentary canal be righted and all local irritation be interdicted.

There is a form of eczema in which the vesicles instead of drying up into thin scales verge into a damp surface of exuding serum —known as weeping eczema. This form may be complicated with both trophic impoverishment and parasitic invasion.

Diagnosis.—Eczema prefers the flexor surfaces, and there is no other skin disease except prurigo in which itching is so commonly present. It may possibly be mistaken for erysipelas, scabies, sycosis, psoriasis, syphilitic eruptiyn, tinea, tonsurans, and superficial lupus.

To differentiate: Unlike erysipelas there is no preceding rigor, no albuminuria or headache, but slight temperature if any, and the surfaces are not so smoothly glazed nor the margins so well defined. Scabies can be easily differentiated by the magnifying glass, which readily reveals the pin scratch cuniculus as also the acarus.

Psoriasis appears just below the knee-caps, and on the points of the elbows, has a sharply defined and raised margin, and forms rings. Sycosis is chronic in character, infests the hairy parts of the face and is devoid of exudation. Tinea tohsurans (ring-worm) has a slightly raised margin which is brighter than the other portions of the patch, and the lesion spreads from the margin. If a microscope be used before remedies are applied the diagnosis is easy. Lupus is brought to light in most cases by investigating the family and personal history of the patient. Dermato-syphilis is specific and a painstaking experienced observer can not mistake it for eczema.

Treatment.—All authorities agree upon the necessity of cleansing the alimentary tract. For this purpose the waters from our number four well are used. It may be seen from the analysis that the water is not only purgative but tonic in the greatest degree.

No. 4.—Grains of solid matter per gallon, 22.20.

Consisting of the following salts:

Sulphate of Lime (strong),
Sulphate of Iron,
Chloride of Iron (faint),
Free Sulphur,
Grganic matter, (trace).

This water shows quite a free floating bituminous or tarry matter, and has a strong odor of petroleum or naptha, while its residues are sticky with the organic tars and tarry compounds.

When the disease is met with in the gouty or in persons afflicted with specific taint we prescribe waters of well number fourteen, which are purgative, alterative, and tonic, as analysis confirms.

Galveston, Texas, Sept. 17, 1898.

Analysis of mineral waters found at Sour Lake, Texas, at a depth of 200 feet.

Gases—

Carbon-oxy-sulphide.
Sulphurretted Hydrogen.
Carbonic Acid.

Fixed Mineral Substances—

Sillicic Acid.
Iron Oxide.
Sulphate of Lime.
Aluminum Oxide.
Sulphate of Strontia.
Carbonate of Magnesia.
Chloride of Sodium.
Iodide of Sodium.
Bromide of Sodium.
Nitrate of Sodium.
Bicarbonate of Sodium.

The water is a strong salt salinic mineral water, and its medicinal properties are remarkable. It contains a large amount of Iodide of Soda and Carbonate of Magnesia, so that its use in diseases of the intestines and urinary organs is strongly indicated. For Rheumatism probably no better remedy than the above water can be found. As it contains carbon-oxy-sulphide and bromides, it will prove beneficial to nervous people.

The water was entirely free of organic matter, which signifies that no products of fermentation are present which may be injurious to health.

The water was struck at a depth of 200 feet in the lower Keuper formation, a branch of the grand Eocene formation. Eocene means "the rising of a new day," and I hope that for the users of this water a new day in life may begin.

It must be stated that as a medicinal water, it is a specific in curing Bright's disease with all its accompanying ails, and derangements of the kidneys in general.

Taken as a whole the water combines in it the healing properties of the waters of Pyrment and Wiesbaden in Germany—certainly a lucky combination.

(Signed.) F. C. Thiele, Chemist.

In combination with the water, which soon correct any dyscrasia of gastric and intestinal functions, a system of baths is here inaugurated by which mineral tar (petroleum) and sulphur mud, charged heavily with natural combustible gas, are coated over the entire body, and permitted to remain twenty minutes, after which the patient plungrs into the swimming pool at a temperature comfortable—though not hot.

Hot baths for eczema are injurious. The bath should be as nearly as possible of the temperature of the body; and this is the custom obtaining at Sour Lake. The pools can be lighted at night by the gasses which ceaslessly bubble from the shores of the lake and many patients prefer to enjoy their ablutions after nightfall, since in this altitude and latitude there is no danger of coryza. The following is comprehensive:

Extract from report of J. W. Mallet, Professor of Analytical Chemistry of the University of Virginia.

"The assemblage, at Sour Lake, of acid, saline and sulphurous waters, earth charged with acid and saline ingredients, deposited sulphur, mineral tar and natural combustible gas, is well worthy of the attention, both from scientific standpoint, in view of the special geological conditions here encountered, and in connection with the medicinal application of most of the materials in question for the relief of various ailments. The locality, considered as a sanitarium, appears to have many incidental advantages, especially a mild climate, pleasant and of good repute on the score of general healthfulness for residence, both in summer and winter."

No. 7 contains per wine gallon: 16.67 grains free sulphurous acid; 45.52 grains alluminum sulphate; 17.20 grains iron (ferrous); 2.63 grains magnesium; 6.12 cubic inches sulphureted hydrogen.

No. 9 contains per wine gallon: 6.18 grains free sulphuric acid; 31.28 grains aluminum sulphate; 7.71 grains iron (ferrous); 1.50 magnesium. This water also contains potassium, sodium, silica and lime.

In conclusion I wish to state that I have not yet found it necessary to use adjunct remedies in the treatment of eczema since I assumed the medical directorship of this sanitarium. Patients from every State in the Union come here to be cured of eczema. They are directed to drink of the acid waters until constipation and indigestion are completely eradicated, and to take the mineral earth baths, Dietary instructions, as well as an adherence to hygienic features, such as correct wearing apparel, are insisted upon.

Physicians who may desire information concerning other properties of saline and sulphurous, potable, and bathing waters, and of the sulphur and acid earths, and mineral tar, of these remarkable springs, are requested to communicate with the author.

A farmer near Noblesville, Ind., fifty-two years of age has never had teeth, and all four of his children are toothless.

Report of some Cases of Appendicitis from a Medical Standpoint.*

By Robt. I. Hicks, M. D., Ex-member of the N. C. Examining Board and Ex-member of the Virginia Examining Board.

This is a disease that has been reported almost exclusively from the standpoint of the surgeon. Many have gone so far as to say when the diagnosis has been settled the function of the physician ends.

Truth generally lies in the middle. This is no exception to the rule. It is both a medical and surgical disease.

There are three forms of it, the acute, the chronic and the suppurative. These, for all practical purposes, may be divided into the catarrhal and suppurative. As long as it is catarrhal it differs not from other inflammations and, therefore, belongs to the physician. When it becomes suppurative it then becomes a Surgical disease. Wherever pus is found the surgeon's knife is demanded. Fortunately the great majority of cases are simply catarrhal and, therefore, throws the balance in favor of medical treatment.

I thought it might not be uninteresting to report a few cases, that have fallen under my personal observation and were treated medically, and contrast them with about a like number treated surgically, confining myself within the narrow limits of cases occurring within my personal knowledge.

Case 1st. A lady about 40 years old, large and healthy. Symptoms—pain and tenderness in the iliac region. Constitutional symptoms—fever and nausea. Symptoms disappeared in about three weeks when she was discharged and left for Charlottesville. After her arrival she had some return of the symptoms I was told, and removal of the appendix was advised and declined. There has been no recurrence, though seven years have elapsed. The slight return was simply an aggravation of existing pathological conditions excited by resuming her usual habits a little prematurely.

Treatment consisted in poultices to iliac region, mild laxatives, tepid enemas, liquid food, and small hyperdermics at night to relieve pain and procure sleep.

Case 2d. A little boy aged about 13. In this case the tumor, in addition to other symptoms, could be distinctly recognized. He also had continuous fever and tympanitis. He was the son of a wealthy Baltimore lady. After he had been sick about two weeks his mother wished the consultation

*Read before the Virginia Medical Society.

of a prominent abdominal surgeon from Baltimore, who concurred with me in the propriety of postponing operative interference a while longer. In the meantime he began to improve, slowly but steadily, until complete recovery took place.

Eight years have now elapsed and there has been no sign of recurrence. Treatment was on the line of that of the previous case. He was confined to his room about 40 days.

Case 3d. A little girl about 12 years old. Symptoms and treatment similar to the foregoing, with similar result. Recovery complete and no recurrence. She is now a grown and healthy young lady.

Case 4th. A little boy, age about 12 years. This was a severe case, with intensified symptoms. Operation was advised in this case, but not performed because opposed by two consultants. The little fellow died of peritonitis. As he lived beyond the acute stage and made a manful struggle for life an operation might have saved him.

Case 5th. A little boy, age about 12, presenting the unmistakable symptoms of appendicitis, with treatment similar to the former cases, complete recovery followed, with no unpleasant symptoms and no recurrence subsequently, although a few years have since elapsed.

Case 6th. A minister about 54 years old, not particularly strong. This case was seen by Dr. I. Stone, of Washington. Under similar treatment he recovered completely, though convalescence was slow and indications of chronic trouble remained for several months. There has been no indication of a recurrence though two years have elapsed.

Treatment differed not essentially from that of the preceding cases.

Case 7th. An eminent Confederate officer, Col. Jno. S. Mosby, age about 63. The usual symptoms were present, complicated with tympanitis and temporary obstruction of the bowels. The attending physicians were Dr. H. Frost and myself. His condition was frequently so threatening that his age and general condition alone prevented an operation—the risk we thought too great, Feeling our great responsibility and full of anxiety, we struggled along with the foregoing treatment, and success finally crowned our efforts, resulting in complete recovery. There has been no recurrence, reports to the contrary notwithstanding, though five or six years have elapsed he assures me that his health was never better.

Case 8th. A healthy, ruddy young lady, age about 23 years, taken suddenly after a long ride, with the usual symptoms.

Treatment was exactly similar to case first and second. This case was seen in consultation with Dr. Kerr, one of Washington City's most eminent surgeons. I may here add that while he has operated in this disease a great many times and with great success, he is very conservative in his views.

Upon a full and careful examination an operation was not considered advisable at that time. She was confined to her bed over a month, but in the end made an excellent recovery. She is now perfectly well, rides across the country, jumping fences and performing the usual feats of good riders.

Case 9th. A young lady, age about 24. She was rather delicate and inclined to be nervous. This was an interesting case and seen by two eminent surgeons in consultation. The advisability of an operation was considered, with the result of a postponement to await developments. She passed the acute stage and recovered sufficiently to return to her usual amusements, but complained of a constant soreness in the region of the appendix. As this persisted and seemed to oppress her spirits, I advised submission to an operation, which was successfully performed by Dr. Geo. Ben. Johnston more than six months after the attack.

Inflammation had disappeared, but left some adhesions, which was the cause, probably, of the unpleasant sensations. There was nothing in the condition of the appendix to jeopardize life and I am disposed to attribute the subsequent symptoms partly to neurasthenia.

Case 10th. Age about 30. This was what has been termed a fulminating case, indicated by quick pulse, fever, excruciating pain and great tenderness at McBurney's point. The attack began on Friday night with such pain as to require $\frac{2}{3}$ gr. of morphia hypodermically to afford relief. There was very little abatement in the symptoms for the subsequent five days, when the quickness of pulse with fever and great regidity of the abdominal muscles demanded, in our opinion, immediate removal of the appendix. Dr. Kerr, of Washington, who was called in consultation about the 3d, advised the substitution of the ice-bag for poultices and await the passing of the acute stage. On the 6th day the operation was performed.

This case was interesting in that the inflammatory process had formed adhesions and walled off the abscess so that the operation was little more than evacuating fetid pus from a dangerous locality. The pus was removed with gauze, a gauze drain left in, and recovery was rapid and uneventful.

The appendix was necrosed and had sloughed away.

This was the second case of this kind that has come within my knowledge.

Case 11th. A little boy about 14 years old, symptoms characteristic, but manifested in a mild form, under laxatives and poultices he improved rapidly, but getting out of the bed too soon there was a mild return of the symptoms, whereupon he was hastily hurried off to Richmond, where, remaining under observation for a week, the appendix was removed, more to prevent recurrence than impelled by threatening symptoms, as more than three weeks had elapsed since the commencement of the attack. The appendix showed no formation or tendency to the formation of pus. I found the lumen entirely closed by inflammation. I think there was little doubt of the recovery of this case under medical treatment and can, therefore, safely add it to that list.

This would make eleven cases in all; of which one died, one was operated upon that would have died under medical treatment, one operated upon that would, in all probability, have recovered under medical treatment, and nine recovered entirely under medical treatment—a death rate not exceeding 10 per cent.

In reply to my inquiry, Dr. Henry Fost, who does a large country practice, writes that he has had seven cases of undoubted appendicitis, of which five recovered under medical treatment and two submitted to appendectomy and both died. Two other cases were in a moribund condition when he saw them and he only suspected appendicitis. The two cases should, therefore, be eliminated from the list.

A few other cases have occurred in this community which recovered under medical treatment.

Confining myself, as I stated in the beginning, within the narrow limits of my personal knowledge, I propose now to report a few cases submitted to the surgeon's knife in acute stage.

I have nothing to say in regard to the removal of the appendix to prevent an attack. It would be a good thing were all of us deprived of our appendices. For the appendix stands as a superfluous organ and a constant menace to human life. Its use has not yet been discovered. As the cæcum is poorly supplied with excreting glands it is supposed by some that the appendix makes up the deficiency. This, however, is a case in which we might apply the Darwinian theory that unused and unnecessary parts and organs atrophy and finally disappear, and that as that does not happen in regard to this organ it must serve some useful end, though unknown in the human economy.

In the following cases I shall report simply results, as the operations verified the diagnosis:

Cases 1st and 2d. Two young ladies in Staunton. Operation in both cases resulted fatally.

Case 3d. A young man operated upon in Marshal, Va. Result death.

Case 4th. A gentleman in the prime of life, belonging to the legal profession in Richmond, operated upon early in the acute stage. Result death.

Case 5th. A young lady from Baltimore. Young, bright and beautiful, who a short time previously was the guest of my daughters and attended the Warrenton Germans. Operation in the acute stage. Result death.

Case 6th. A beautiful little girl, sister to my case No. 2. Operation early in the acute stage. Result death on about the 2d or 3d day, while her brother is well and at present a business man in Baltimore.

Case 7th. A young man and relative. Operated upon in Norfolk. Result death. I know not the surgeon.

Case 8th. A married lady, the daughter of a physician and friend. Appendix removed. Result death.

The only cases of appendectomy in the acute, or rather subacute, stage, within my personal knowledge, that have recovered, have been cases in which inflammation had formed adhesions and walled off the appendix, and in which the operation consisted in little more than emptying an abscess.

A comparison of these two classes of cases raised the question in my mind as to the advisability of operating in the acute stage, unless the indication was marked by such violent and threatening symptoms that risk and responsibility must be assumed. Even then the responsibility is very great, because adhesions may be going on for the protection of the patient and which may be incomplete, and opening the abdomen may discharge infectious matter into the peritoneal cavity which within a few more days completed adhesions might have prevented.

Had my case No. 10 been submitted to operation a few days sooner the above might and probable would have happened.

Now a comparison of the above mentioned cases submitted to surgical treatment with those treated medically, shows immensely to the advantage of medical treatment.

It may be remarked that the foregoing illustrations are an insufficient basis for practical conclusions.

Bearing this in mind I wrote to Dr. Maurice Richardson, of Boston, for his statistics bearing upon this point. Dr.

Richardson's opportunities and success in appendicitis have been of the highest order. His statistics, drawn from 757 cases, showed a fatality of 22 per cent. in cases operated upon, as against 17 per cent. of cases left to medical treatment.

I am also informed by Dr. Kerr, of Washington, who has achieved a well deserved reputation as a surgeon, that the mortality is so great from operations in the acute stage, that in such cases he interferes with the greatest reluctance.

The above facts have an important bearing upon that much mooted question whether this is a medical or surgical disease, and manifestly throws the balance of weight in favor of the former.

Notwithstanding it is said that opinion is rapidly drifting in the direction of placing this disease exclusively in the list of surgical diseases, and, as previously stated that as soon as the diagnosis is made the function of the physician ends and that of the surgeon begins—the skilled abdominal surgeon.

Were this true it would be a great misfortune for the human family; because abdominal surgeons are very scarce, confined, for the most part, to the great cities, while appendicitis is universal, with a large majority of cases appearing in the rural districts, beyond the reach of abdominal surgeons, but where, it may be remarked, we hear of but few deaths from it.

The tendency at present seems to be towards conservatism on the part of our most experienced surgeons.

Dr. Richardson says that in a case in which a severe attack is subsiding operation should be withheld as long as the symptoms continue to improve.

Dr. Kerr, of Washington, says that in 50 per cent. of the cases brought to him he finds operation unnecessary for the above reasons, and "that when he finds it necessary he considers it of great gravity during that period, but lets each case be decided on its own merits," and tries to tide the patient over the acute stage; that the chances of success are greater at the end of a week than at the end of the third or fourth day.

In regard to the question of recurrence I am not prepared to commit myself unreservedly. It does not seem to me that because one has had an attack he should feel such dread of another as to rush to the surgeon's knife.

Doubts have been raised in my mind as to the great frequency for the following reasons:

1st. Among all my cases I have not had a single recurrence.

2d. Evidence of previous attacks rest for the most part upon the indefinite and unsatisfactory testimony of the unprofessional. An attack of colic in the past is put to the credit of appendicitis, in the face of the fact that vast numbers of attacks of colic have no such sequel.

3d. The tendency of inflammatory process is to adhere to opposing surfaces. Exudative inflammation in the appendix, not resulting in suppuration, would, therefore, naturally close the door to the entrance of foreign bodies and give an immunity which would not otherwise exist.

I found this to be the case in an appendix which I had an opportunity of examining recently.

Impressed with these facts and ideas I wrote to Dr. Maurice Richardson asking in what proportion of his cases had he found the lumen of the appendix closed? He replied that he had kept no record of them, but that it was occluded in a great many.

I think, therefore, an operation in the interval more justified by its eminent success than by its necessity.

I do not wish to be understood, however, as believing in the impossibility of recurrence, but as having some doubt as to whether the probability of recurrence is greater than the risk of appendectomy.

Examination of the Blood in Surgical Diseases.*

By H. Stuart McLean, M.D., Lecturer on Bacteriology and Physical Diagnosis; Director of Microscopical Laboratories, etc., University College of Medicine; Bacteriologist to Virginia Hospital; Bacteriologist and Hematologist to St. Luke's Hospital, etc., Richmond, Va.

The remarks made by the writer at the last annual meeting of this Society upon examination of the blood in appendicitis brought so many queries regarding the value of this means of diagnosis as to suggest that a paper on the subject would not be amiss. Although this branch of clinical diagnosis has been known but a few years it has advanced with such rapidity that it has now reached the position of an important, often indispensable, method.

Not only in surgical diseases, of which this paper is a partial review; but in medical practice is also found a field even wider and of greater practical application, concerning which another paper is to be read at a subsequent meeting. The enumeration of the red corpuscles I can but briefly men-

*Read Before the Virginia Medical Society, at Richmond, Va., October, 1899.

tion, as the subject could well consume the entire paper, and will but call attention to the variation in their number occurring after hemorrhage. *Immediatcly* after the loss of considerable blood very little change will be noticed microscopically as the loss has been of all the elements of the blood and the proportions remain the same. Witnin an hour, however, fluid begins to enter the vessels from the tissues, greatly diluting the serum, but producing more volume for the heart to contract upon, and thus raising the blood pressure. This dilution of the serum of course produces a corresponding diminution in the number of red corpuscles (the white, as we shall see later, are not decreased). A count, therefore, in a case of hemorrhage (internal or visible) will reveal a decrease in the number of red cells to even as low as one or two million per c m m., whereas the normal is about five million. It is readily seen how valuable such evidence may be in diagnosing hemorrhage into closed cavities and to a certain extent estimating the amount of hemorrhage. Further on reference will again be made to this subject.

In connection with the same emergency (hemorrhage) may be considered the value of estimating the hemoglobin present. This substance diminishes proportionately with the red cells and indicates the same condition. In this connection attention might be called to the attitude of the well known surgeon Mikulicz who is so fully convinced of the value of analyses of blood that he has formulated the rule: never operate on any case when the hemoglobin is below thirty per cent. This is applicable to all cases where this reduction in hemoglobin is found and not to cases of hemorrhage only.

The white corpuscle or leucocyte is at present receiving a very great amount of attention from pathologists. Its prominent local activity in all inflammatory conditions has been thoroughly recognized since the researches of Metschnikoff, Buchner, Massart and others, but concerning its actual utility, either in an area of inflammation,or in the circulation in certain inflammatory disturbances there is still some dispute. It seems more than likely, however, that it is the function of the leucocytes to produce some material concerned in counteracting the toxins causing, or produced during, the disease. The original theory of Metschnikoff that "inflammation is a combat waged by the cells against intruders or disease producers," has undergone some modification; as Zeigler says, "such a manner of characterizing the phenomena of phagocytosis amounts simply to a poetical way of expressing ones self and does not do justice to the essential facts." However, no matter what the function of the colorless corpuscle, it is certain that in various diseases they afford opportunity for both differential diagnosis and prognosis, usually based upon the presence or absence of an increase in their number. The leucocytes are normally present in the proportion of from six to nine thousand per cubic milimetre in the peripheral circulation; and any temporary secondary increase is spoken of as leucocytosis.

In all cases of inflammatory disturbance whether accompanied by pus formation or not, leucocytosis is an invariable accompaniment (except in a few instances to be mentioned further). The suppurative process may be acute or chronic, deep-seated or superficial, encapsulated or diffuse, but the leucocytosis still exists.

Before detailing some of the conditions where the application of this fact is of practical importance, some general laws should be cited:

1. The leucocytosis is not confined to the area involved in the inflammatory action. It is found throughout the peripheral circulation.

2. Pathological leucocytosis must be differentiated from digestive leucocytosis, an increase occurring after a meal. It commences abont one hour after eating and continues from two to four hours, depending upon the rapidity with which digestion takes place. It is, therefore, best when examining the blood to count the leucocytes just before or after a meal. The preferable time is just before breakfast.

3. Leucocytosis occurs in the majority of cases of pregnancy during the last 5 months, varying (according to Reider) between 10,000 and 16,000.

4. As a rule, pathological leucocytosis is in excess of what a physiological leucocytosis would be, the latter rarely exceeding twelve or fourteen thousand. The reliable method of differentiating in doubtful cases lies in choosing the proper time for the examination.

Only a few of the more prevalent and important diseases in which leucocytosis is found will be mentioned, as the whole number is so great that to mention them all would consume too much time and defeat the object of the paper.

Abscess.—Whether the accumulation of pus be of recent origin and accompanied by acute inflammatory disturbances, or chronic ("cold"), the increase in the number of leucocytes still holds good. The presence of pus is what is revealed by the blood—and neither the thickness of the abscess wall, nor the pressure under which the pus is elaborated seems to influence the number of

leucocytes. The presence of leucocytosis begins with the formation of pus and increases as the latter does. Leucocytosis is not always proportionate to the amount of pus present; the writer has counted the leucocytes in a case of a small abscess on the back of the hand and found them 27,000 per c.mm.,while in a case of purulent appendicitis they were 17,000. This may appear at first glance to detract from the value of the test, but such is not the case. In both cases the blood examination proved the existence of pus, and taking each case separately we would find a leucocytosis varying as the amount of pus increased and diminished. As a matter of fact the amount of leucocytosis is due, not so much to the mere presence of pus, as to the resisting power of the patient.

Abscess of the liver may be affirmed or excluded by counting the leucocytes. The deep-seated nature of this trouble is often a serious obstacle to a correct diagnosis by physical examination, and many diseases may simulate it, such as malaria, duodenal catarrh, and impacted gall-stones. In case No. 10 diagnosis was confirmed by blood count, while on another occasion (case No. 11) a negative diagnosis was also confirmed by further examination.

Not infrequently in laparotomies for the removal of foci of suppuration, a temperature will develope upon the second to fifth day which may be due either to reinfection, impaction of feces, or malaria. The existence of a pocket of pus, (case No. 22) is readily determined by counting the leucocytes.

Appendicitis.—In this disease more than any other has the value of a leucocyte count been demonstrated, and the majority of surgeons regularly make blood analyses of their cases. The leucocytosis of appendicitis varies in a measure, according to the form and amount of inflammation. In simple catarrhal appendicitis the leucocytosis may be absent, or very slight, depending upon the amount of inflammatory reaction which has occurred in and about the wall of the appendix, while in purulent and gangrenous appendicitis the number of leucocytes is always increased, often to a marked degree. The fact that in catarrhal appendicitis leucocytosis is not constant is by no means an objection to the method, as surgical interference is not indicated in this form during the attack (case No. 6). As the disease progresses, however, with resulting pus formation or gangrene, then leucocytosis appears and is a reliable index of the progress of the disease and the necessity for immediate surgical interference. Hence it will be seen that this point may be of very great value in diagnosis, differential diagnosis, and prognosis. It detects the advance of a case from the simple catarrhal form to the purulent or gangrenous, i.e., fron the non-operative to the operative; and in the latter form it accurately shows the true progress of the disease, irrespective of prominent symptoms, which are too often misleading (case No, 4).

In the differential diagnosis of appendicitis will the greatest practical applicability of this method be found.

Diseases which often simulate appendicitis, such as hepatic or renal colic, intestinal colic, intestinal obstruction (without gangrene), fecal impaction, typhoid fever, nephralgia, floating kidney, ovaralgia, old adhesions (quiescent), and tubercular peritonitis, are all readily differentiated by their failure to cause leucocytosis.

Three times has the writer decided against appendicitis in cases which subsequently proved to be typhoid fever (cases No. 1, 2, 3), and upon one occasion a diagnosis of impacted gall-stones was suggested in a case where appendicitis was suspected (case No. 7).

Pyosalpynx.—This disease is frequently met with, and has to be differentiated from a prolapsed and inflamed ovary, ovarian neuralgia, ectopic gestation, small extra-peritoneal hematoma or inflamed fibroid. The diagnosis is usually easy (cases No. 19, 20). as any pelvic lesion showing leucocytosis is almost certainly a pus tube or other localized collection of pus.

Osteomyelitis.—Cases of suppurative disease of the medulla of bone which have been treated for a considerable time for "rheumatism," neuralgia, or even confounded with typhoid or malarial fever have been met with by most physicians, and often the diagnosis has been made only when the pus has risen to the surface and "pointed," a time when surgical interference is practically powerless to effect any relief. Indeed such cases are not always readily diagnosed even by expert clinicians. The persistence of the disease, however, should arouse suspicion, and in cases of osteomyelitis a blood examination will always reveal a marked leucocytosis unless the osteomyelitis be tubercular (case No. 18).

Tuberculosis.—This disease appears in many disguises to the surgeon, and the question of the tubercular or non-tubercular character of a case often assumes a serious aspect. Fortunately in *pure* tubercular lesions, whether accompanied by pus formation or not, there is no leucocytosis, indeed little change in the blood. Should a tubercular knee-joint, for instance, become infected with pyogenic micro-organisms,

the leucocyte count at once rises. In a case of cervical glandular enlargement with fluctuation, absence of leucocytosis established a diagnosis of tubercular abscess confirmed by subsequent examination of the pus (case No. 17).

Shock.—The question is often an anxious one to the physician and surgeon whether a given case of shock is due to concussion or compression, or to hemorrhage. If the case be one of shock of nervous origin, the blood will show no change, while in the shock of hemorrhage we find the red corpuscles reduced, as already mentioned, and the leucocytes increased. This leucocytosis commences within an hour or so after hemorrhage has occurred and persists for days, sometimes weeks. The value of this point can hardly be overestimated when we consider how frequently the question of the advisability of employing transfusion arises. The old method of judging by the appearance of the patient has proved itself sufficiently unreliable in addition to being unscientific. Cabot* says: "The right decision of this question is of great importance, for if the "shock" means anemia, transfusion may be indicated, while in a condition of cerebral concussion or compression, transfusion will probably do harm."

There are but few of the diseases in which a blood count is often applicable and I doubt not that, faulty as this paper is, you recognize the value of the method. From 15 to 30 minutes of bedside work, and the result is many an obscure case cleared up or a prognosis which relieves the strain on physician and friends alike.

The following are some cases selected from the writer's work during the past year or so as bearing more or less directly upon the diseases mentioned in the body of the paper:

1. Male, adult, indefinite abdominal symptoms referable to either typhoid or appendicitis; leucocytes 7,300; case ran a typical typhoid course.

2. M., child, thought to be appendicitis, operation advised by consultant; leucocytes 6,800; diagnosis confirmed by Widal's test.

3. F., 17 years. Sick one week, all symptoms referable to right side; leucocytes 6,100; diagnosis, typhoid fever.

4. M., adult; appendicitis; symptoms of abscess; leucocytes 19,600; 24 hours later temperature, pulse and general condition better; leucocytes 22,000; next day symptoms still improved, leucocytes 27,000. Operation urged, as abscess was believed to be increasing in size. Upon operating, found necrotic appendicitis in abscess cavity containing 9 oz. of pus.

5. M., 13 years; leucocytes 31,200. Gangrenous appendix found.

6. M.. adult. Appendicitis diagnosed. Question of advisability of operating, as symptoms of pus formation (high temperature, chills, etc.,) were present. Leucocytes 9,600. Catarrhal appendicitis diagnosed. Ten days later operation showed appendix surrounded and bound down by many adhesions; no pus.

7. F., adult. Appendicitis suspected. Leucocytes 7,400. Further search showed impacted gall-stones.

8. M., 29 years. Appendicitis diagnosed in preceding attacks; present attack a mass is felt in right lumbar region. Leucocytes 7,000. No diagnosis made other than that surgical interference was necessary. Operation showed obstruction due to old adhesion; appendix normal.

9. F., adult; symptoms of obstruction of gall-bladder. Leucocytes 14,000. Operation showed empyema with impacted gall-stones.

10. M., adult. Symptoms of fever, chills, sweats and nausea. Leucocytes 17,200. Diagnosis, hepatic abscess. Operation showed large abscess of right lobe.

11. M., adult; supposed case of hepatic abscess. Leucocytes 6,800, excluding pus. Subsequent examinations revealed abdominal aneurysm.

12. F., adult; a leucocyte count of 51000 established the diagnosis of mammary abscess.

13. F., adult; The clinical symptoms of appendicitis with abscess formation were corroborated by a leucocytosis of 16,000.

14. F., child. Case was being treated for malaria and while examining for plasmodium a leucocytosis of 24000 was found. Further search revealed purulent appendicitis.

15. M., adult. Leucocytes 28,700. Pus somewhere was diagnosed three days before a perinephritic abscess was discovered.

16. M., child. Case of peritonitis, tuberculosis suspected. Leucocytes 19,3000. Tuberculosis thereby excluded.

17. F., child. Enlarged cervical gland with fluctuation. Leucocytes 6200. Diagnosis, tubercular abscess.

18. M., adult. Case being treated for muscular rheumatism, and blood examination was asked for to detect indications of malaria. The leucocytes were found to be 10600 and the suspicion of osteomyelitis afterwards confirmed by operation.

19. F., adult. Pus tube suspected from examination of tumor. Leucocytes 8,000. Diagnosis inflamed ovary, confirmed by

*Inter. Text-Book of Surgery, Vol. I., p. 81.

progress of case. Patient made rapid recovery under appropriate treatment.

20. F., adult. Pus tube suspected. Leucocytes being only 7,900, pus was excluded. Case proved to be prolapsed and painful ovary.

21. M., adult. Thrown from horse and badly bruised. Leucocytes being 9100, red cells 4700,000, a diagnosis of concussion was made, which proven correct.

22. F., adult. Laparatomy for pus tube. On fourth day temperature was 101, patient had a slight chill, wound looked all right. Leucocytes 23,800. Pocket of pus diagnosed and confirmed by vaginal examination. Vaginal drainage released an ounce of pus and relieved all symptoms.

Ancient Versus Modern Therapeutics.

The old saying "Do not throw over an old and tried friend for one yet untried" does not seem to apply to medicine as much as to some of the associations of life, for in this progressive age of ours our science has made and is constantly making such wonderful strides forward that only those of us who take advantage of these opportunities of advancement can be classed amongst the modern therapeutists, and I fear too many of us belong to the class that is unwilling to take up any new preparations brought to our notice, because they are new and have not been used for decades, even though they come to us very highly recommended by scores of our brethern. They are still new to us because we have not given them a trial and instead of trying them and advancing in our therapeutics we are willing to plod along at the same old gait and to be overtaken and passed by our more ambitious brethren with the remark, Oh, Dr. A. yes, he is all right, but the truth is he does not keep posted: his treatments are very obsolete; I am sorry for the old gentleman, but he is losing ground daily." Which is only too true. Do not misunderstand me. It is not by aimlessly jumping from one new preparation to another but if we find one treatment exploited—one drug explained, giving better results than what we are getting, we are surely serving the interest of our patients better by cautiously adopting those treatments and drugs and slowly dropping our old friend as our experiment in the new warrants our faith. In other words, drop the ancient and adopt the modern therapeutics. I have in mind one particular case where adopting the above brought about the best of results and paid very well both financially and in the gaining of new patients, while the consultants by adhering to old methods lost all. I will give the complete history and let you judge which of the two pays best in results.

N. D. aged 6, female. On the 15th of October, 1896, while she and her sister were playing with matches they ignited and set fire to the dress of N. D. The results was a most severe burn, extending from the ninth rib on the left side up to axilla, from axilla to forearm. The pain, goes without saying, was dreadful and shock severe.

I was called in immidately after the accident and found the patient almost hysterical from pain. I at once gave her Morphia. After the quieting effect of the opiate began to show itself, without any further adieu, I covered the wound with dressing Unguentine. In a very short time the cries ceased and the child went into a quiet sleep. The family physician with my permission was called in and he advised Carron Oil. I put that on and the next morning when I called the dressing stuck to wound and was removed with some difficulty. I again put on same dressing with same results. Then I refused to use carron oil again and went back to Unguentine. The next time I took off the bandage the dressing proper fell off of its own accord. The results was a pleased child and a grateful mother. The consultant came and was very much provoked at my presuming to change the dressing and ordered me back to old dressing. That I refused to do. He then sent the family Vaseline to use. I applied it once, went back to Unguentine. Consultant again condemned Unguentine, and this time he sent me one pound of Cold Cream. I applied once as before, then went back to Unguentine again. This time the consultant refused to call again unless I was dismissed from the case. Unguentine won the day and I remained. The other physicians consulted all agreed this child would be dreadfully scarred no matter what the dressing would be. I kept on with my dressing and the results was a complete recovery without a scar to show it. No eschar tissue having formed, having had no trouble trasplanting skin, not even having had to wash or cleanse wound as the dressing seemed to take care of itself. I was very highly gratified at results. Would not you, Doctor?

Hope this will be read and accepted in the same kindly sprit it was written.

John R. Baer, M. D..
Chief Surgeon Philadelphia Eye, Ear, Nose and Throat Dispensary.
2158 N. 18th St., Philadelphia, Pa.

For corrosive sublimate poisoning albumen is well-known to be an efficient antidote. An albuminate of mercury is formed, which, being in soluble, is not at all toxic, is in fact entirely inert. Recently this feature has been embodied so as to be of the utmost service to the surgeon, to the dermatologist and to the general practitioner as well. The albuminate of mercury as found in the germicidal soap known as Sapodermin, is not only not toxic, it is not irritant, it does not corrode metals. In addition. it is absolutely soluble, it has marked penetrating power, and in germicidal action is equal to the sublimate, As is well-known the bi-chloride is absolutely inefficient as a germicide in the presence of oil or grease. With the soap above mentioned the preliminary use of alcohol or ether is rendered unnecessary. Since the value of the bi-chloride as an antiseptic is due partly to its corroding action and the preciptation of albumen, it follows that its sphere must be limited thereby. Under the film of mercury albuminate formed, germs may still thrive and prosper. This is not so with Sapodermin and accounts partly for its greatest efficiency and penetrating power. The soap is also a skin nutrient and invaluable in various skin lesions, particularly those due to parasites.

Extreme Anemia, After Post-Partum Hemorrhage, Treated with Nucleo-Albumens and Bone-Marrow.

By C. F. Bachmann, Ph.D., M. D., Allegheny, Pa. Late private assistant to Prof. O. Huebner, University of Berlin; Privat Docent Charity Hospital, Berlin: also assistant to Prof. Von Heyden, etc., etc.

The prompt and decisive results obtained in the following case of anemia, secondary to a severe post-partum hemorrhage, induce me to repors it for publication.

Mrs. O. T., white, aged 23, primapara, weight 145 pounds; passed successfully through the ordinary diseases of childhood, and two years ago I treated her during an attack of typhoid fever, from which she completely recovered. About a year ago she became pregnant. The course of pregnancy was normal, with the exception of a slight edema and a varicose condition of the veins of the lower extremities. On January 2, 1899, she was taken in labor. Position, R. O. P. Owing to an excessively large head, I was obliged to apply the forceps without anesthesia. The placenta was firmly adherent, and, after an hour's wait, was delivered by hand. Scarcely had the placenta been delivered when a frightful hemorrhage occurred. I scooped out all clots and fluid blood and controlled the hemorrhage by injections of hot water, compressed and tamponage. So much blood has been lost as to cause a sub-normal temperature and a small, weak pulse of but 32 to the minute; extreme anemia, great shock and prostration, thirst, sighing respiration, etc. I administered strychnine sulph., gr. 1-20, hypodermically; also, brandy and ext. ergot. The hemorrhage occurred at about 8 A. M., and by noon the patient had revived to some extent, but was suffering from nausea and occasional vomiting, for which I prescribed Liquid Peptonoids and Elixir Lactopeptine with good effect.

January 3, I found the patient somewhat improved, but very weak aud almost bloodless, her lips being literally "as white as snow." I then ordered Hemaboloids (a preparation of the iron-bearing nucleo-albumens of the vegetable food stuffs, reinforced by bone marrow, beef peptones and nuclein) 3ij every three hours; also stimulants and a nourishing liquid diet. The excellent results obtained from this treatment are best shown by the following table:

	Weight. Lbs.	Hemoglobin. Per cent.	Red Blood Cells.
January 3....	135	61	3,450,000
January 7....	138	66	3,509,000
January 14...	140	71	3,760,000
January 21...	140½	76	4,005,000

I did not see the patient again until February 12, when she appeared well and strong, and, to use her own words, felt "tip top." Weight, 140 pounds (the slight decrease probably due to excessive nursing; hemoglobin, 81½; red cells, 4,210,000. Patient was last seen a few weeks ago and was in first-class condition. Considering the profuse hemorrhage and the extreme secondary anemia, the result in this case was indeed satisfactory. I have prescribed this preparation quite extensively and find it of great merit as a readily assimilable tonic in anemia, from whatever cause—chlorosis, convalescence, etc.

Since this case I have used Hemaboloids in several other cases of convalescence from labor with gratifying resulis.—*The Medical Council*, July.

WANTED.—Physician to take my place. If he will buy my office furniture, horse and buggy, I will introduce to a practice paying $1800 to $2000. Unopposed. Address this office.

Bone=Marrow

acts as a stimulant to the formative processes and increases the production of red corpuscles and haemoglobin, making it the ideal remedy in all diseases due to defective haemogenesis.

The best results follow the use of a preparation made with Marrow taken from the animal immediately after it is killed.

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Armour & Company
Chicago.

THE

Charlotte Medical Journal.

Editorial Department.

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Editors and Publishers.

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MEDICINE AND QUACKERY—(PAST AND PRESENT.)

It is often said that history repeats itself. The statement is as nearly correct as we generally get things in our use of language. History, however, represents a continuous procession of humanity, 'from what to what?' we know; and 'repetition' can not be predicated of that which is without interruption. A single observer, or generation of observers, witness but a fragment, or section, of this grand procession of humanity, and may be content with knowledge thus acquired—as some are; while others discover resemblance of that which was seen by ancestral observers, historically represented. Hence the phrase. The lesleson to be learned from which is: all natural processions are moved by forces that effect a certain degree of uniformity essential to uniform results, or ends to be obtained. A fact worthy of attention by all students of natural phenomena, and problems of history, many of which are explicable when otherwise considered. We are, all of us, indeed, too prone to consider facts out of their true relations—magnifying or diminishing according to circumstances—and attributing to special causes effects that pertain to the universal—thinking, perhaps, as many seem to think, of the Universe as a special creation, a personal affair, governed spasmodically by strategy or special providence; and of historical events as controlled by individual conduct—what Alexander, or Cæsar, or Washington, or Bonaparte, or Lincoln, or Davis, did; instead of 'inevitable sequences of antecedent conditions,' over which present actors could have exercised no influence whatever.

As medicine constitutes a conspicuous feature of this natural procession of humanity, it is interestiug as well as instructive to know how so much of the procession as our fathers looked upon appeared to them, and mark resemblances and differences. For this purpose one has but to overhaul some old volumes of medical literature, such, for example, as this number of the "Medico-Chirurgical Review for October, 1846, now before the writer, which was, at that time, and for the first half of the present century, to British Medicine what the London Times was and is to British politics, the "Thunderer."

On page 501-II, inclusive, of this number of the "Review" is an article written by the venerable editor, Dr. James Johnson, whose name and fame will be remembered by but a few American physicians of the present day, entitled "Homeopathy, Allopathy, and Young Physic," the trend and tone of which are sufficiently indicated by the following quotations, brief, but all that space will now justify, to-wit:

"Charlatanism always has existed, and probably always will prevail in the world; and certainly in spite of our *quasi* advance in education, which furnishes the learner with the means of perusing, without the power of judging of the value of the lucuberations of pretenders, at no period of time has it ever been, professional, and non-professional, more rife than at the present time."

Might not that passage have been written yesterday with propriety? Had it been quoted from a recent address of some president of a Medical Socity, in advocacy, for instance, of a more stringent "Medical-Practice-Act" would any one have suspected that it pertained to the literature of another age?

In view of the frequent reference made of late to deaths attributable to Christian Science, for example, would not the following lines seem to be appropriate to present conditions:

"There is an abundance of voluntary dupes who deserve neither commiseration nor mercy; and we suppose the practice of our readers must have acquainted them with instances in which the folly of such has met with its due reward."

Are not the 'follies' incidental to the quackeries of the present day, representative, although not repetitions, of the quackeries of half a century, or a century, since? Hahnemann proclaimed the 'potency' of infinitisimal medicine. Mary Baker Eddy proclaims the impotency of material medicine of whatever pretension. "You pays your dollar, and takes your choice!"

Referring to the facts cited by Dr. John Forbes, whose pamphlet presenting facts favorable to "Reform" in the practice of medicine was under consideration, the fol-

lowing remarks are as truthful and as wise as if said by ourselves, and to-day—

"With the exception of quack medicines, we admit that all these (facts) are citable in proof of many diseases being curable (recoverable would be more accurate) without the use of drugs; but is exhibiting but a poor degree of knowledge of the practice of medicine among the mass of practitioners of this country to endeavor to make it be believed that they place the whole, or in many cases, their principal reliance upon drugs. To them the value of diet, change of air, the various hygienic appliances, the necessity of, in many cases, abstaining from medicine, and in many others of not relying upon it as their principal means, are as well known as to their critic. The fact is there are more ways than one of curing the same disorder."

Is not this, also, as applicable to present conditions, as to the condition of half a century since?

"It may be said that the means which in the hands of the present possessors is neither more nor less, from the general and indiscriminate nature of its pretentions, than gross quackery, might become through its intelligent employment by professional men, at least a valuable adjuvant in appropriate cases; and why, therefore, discourage the partial approvals that are ever and anon appearing in medical works. or at least, that class of medical works which are intended as much (or more) for the public as for the profession." . . . .

"We reply that it is derogatory to the profession, and injurious to the public, for regularly educated medical men to enter into the same career, however modified, with quacks and impostors. When once a medical man begins to dabble in hydropathy, mesmerism, homeopathy, &c., he runs the risk of becoming confounded with the herd of adventurers who are only eager to take advantage of the popular delusion of the day, and must be content to lose cast in the eyes of his professional brethren accordingly."

Of course, our venerable Reviewer could not have had even in his mind's eye the modern method of catering to our popular delusions practiced by some of our Institution-Specialits 'in good and regular standing,' by advertising ample facilities and appliances for treating the sick in accordance with notions that were but a short time since the 'stock in trade' of charlatans and impostors. . . . Of course not! One more quotation must suffice present purposes. Enough has been shown to illustrate the fact of a continous procession; and that what our fathers saw of it did not differ materially from that which is seen by us; that our Fathers knew something as well as we do ourselves, if their knowledge did not comprehend microbian pathology, nor gynecological psychology. Read:

"Were things ordered as they should be, no man who had not received a medical education would be allowed to experiment upon the lives, health, and safety of the public, as he may at present, provided only that he starts some new and preposterous humbug; and then each proposal for the relief of human ills would be submitted to the ordeal most competent to judge of the merit, and if any good were proved to reside therein, it would be appropriated to the special cases calling for its employment."

Rare old James Johnson! In his long career as editor of the foremost Medical Journal of the world he never wrote a shallow, nor superfluous paragraph. That charlatans have always abounded and always will abound in the world is a phenomenon that may not have been philosophically considered by all physicians of even the more learned schools. It is a natural consequence of the organic and acquired inability of mankind. In the grand procession of humanity alluded to in the preamble to this paper but few men, compared with the whole number, are to be found in the foremost files. No matter how highly developed individuals, or classes, may have become at any given time, by far the greater number of persons in the procession represent lower degrees of capability and attainment; ranging all the way from pre-human animality, through savagery, and primitive culture, to the higher degrees of civilization and science. The necessities of human consciousness, embracing its entire range, reaching from simple consciousness-of-self to complex consciousness of all that which is not self, reaching toward the infinite correspond to the intellectual states of individuals, and races. Every subjective human need is responded to objectively by nature. Medicine, of whatever character, is responsive to human needs growing out of that special phase of a general fear of the invisible, known as fear of death. It is invoked, it is true, for the cure of disease; but only because disease is supposed to be the cause, or agent of death. Did disease never terminate fatally, the doctor might still, among the more intelligent, be in request, but with the multitude his occupation would be gone. The recognized failure of medicine in its protracted confidence with mortality, and the final triumph of death—sparing neither infancy, youth,

nor age—at length so far discredits its pretensions, however well-founded, with the more needy, expectant, and credulous, and opens the way for imposture in the guise of who ever may promise, no matter how mendaciously, more certain, and more permanent relief from apprehension. In their turn, however, all such impositions—promise as they may—death being as inevitable as birth, medicine or no medicine, must suffer suspicion and discredit, the fittest only continuing to survive. That 'Regular Medicine' has survived a multitude of new-fangled medical impostures, and is growing stronger and wiser with each decade, recognizing and correcting its own errors, entitles it to patents of nobility which give its members place in the front ranks of the ever-advancing column of civilization.

That 'things' have not been, and will never be, 'ordered as they should be,' is owing to the same general fact of human inequality, natural and acquired, and the further consequental fact that by no possibility of individual or co-operative effort can humanity be brought into a state of uniformity of perception, feeling, or imagination, hence of opinion, purpose and will, upon any given plane of development. 'Things' as they are now 'ordered,' whether as they 'ought to be,' or otherwise, being 'inevitable sequences of antecedent conditions,' are practically irremediable by present influences. By influencing somewhat, present conditions constantly becoming antecedents of the future, we may accomplish something for the benefit of the race, but for ourselves we must accept things as they come to us, and make the best of it. In our treatment of the sick we sometimes find cause to regret that we could not have a 'whack' at some of their ancestors. In our treatment of the sick—but more especially of the well—now, we may do much, if we will, for posterity!

PRACTICAL CHEMICAL URINALYSIS.

Many general practitioners do not take advantage of this useful diagnostic measure. It is necessary that every physician should be able to make the heat and nitric acid tests for albumen, the copper test for sugar and know how to use the urinometer in the most approved way.

One needs to spend but a few dollars for a half dozen six-inch test tubes; some red and blue litmus paper cut and in bottles so that it will not change color by exposure; a urinometer; a few ounces of nitric acid; a few ounces of Haine's solution of copper; a long medicine dropper; an alcohol lamp; a large glass for the patient to pass his urine in at the office; a galvanized dipper and bucket for clean water and the same kind of a bucket for waste water.

Any modern work on Practice, Diagnosis, or Urinalysis will give excellent directions for analyzing urine and should be followed explicitly.

If one makes it a rule to examine and make a study of the urine of all patients for several months he will be astonished at the increase of general knowledge of disease it brings and of his increased aptness in making a diagnosis.

Probably the mistake most often made is to think one has albumen when cloudiness occurs on boiling a specimen.

The test should be proven by adding a drop of nitric acid when the cloudiness will increase if albumen, but clear up if phosphates.

In the copper test for sugar there is frequently a flocculent cloudiness of a color suggesting reddish or yellowish which is due to urates and has been put down as sugar by careless analyzers.

A little sugar of milk dissolved in water makes a good practice solution, and some white of an egg in water gives a good study-mixture for albumen.

Sugar from the grocery will not give the reaction with copper.

The differential diagnosis between gastric catarrh and diabetes when there is considerable thirst and an excess of urine at times, might hinge on the sugar test of the urine.

Some albumen in the urine would aid much to differentiate between hysteria and interstitial nephritis where there is low specific gravity and abundant pale urine.

Albumen and sugar are the most important substances in urine for which chemical test are made.

Pus and blood, unless abundant, and bacteria require a microscope.

WHAT BOOKS SHALL I BUY?

In this age of scrambling for fame and rapid multiplication of books the unpretentious physician scarcely knows the best to buy in order to get the light which he most desires.

Perhaps his modest income does not permit him to purchase anything of doubtful value.

When he studies a catalogue for help in buying he is lost in bewilderment at the long list of books on every subject pertaining to medicine and is unable to select.

The medical book agent tells him that if he gets one practical point from a book that helps him greatly in any particular case in

practice that this is worth the price of the book.

This may be true in part, but to be an excellent book and useful it must have as a basis the established facts of the profession, and must be written by a physician of ability.

Systems of medicine are not usually satisfactory to the general practitioner unless he wishes to build up an extensive library.

They are expensive and more apt to be made up of a concensus of opinions rather than the writers own experience, and in these days by the time the last volume is out the flrst volume is old.

Good monographs or single volume works have an individuality expressing the personality of the writer which is often quite an inspiration to the reader.

Studying reviews of books is a good practice and an aid to buying, but one must know the reviewer almost as well as the writer to determine the value of his criticisms and commendations.

It is an excellent way to write to a colleague, who may be in closer touch with a medical center, for opinion concerning any special work.

A recent graduate should as soon as possible become a member of some medical society, where those things which a physician needs are often displayed and investigated.

It is a valuable aid to study the catalogues in the announcements of medical schools to find what books are popular and one can scarcely miss it on a book where two or more schools recommend it.

As a rule buy single volume works from well known authors, one book on each general subject, and keep up with all advancement by buying one or more books each year, fresh from the press, from a popular author, and a different one from the previous book purchased on the same subject, because of the different experiences of the writers.

PRACTICAL JOURNAL STUDY.

Many physicians sketch their journals, and unless finding something strikingly interesting or illustrating a case, the subject matter is not indelibly impressed on the mind, and the journal is laid aside with no known way thereafter, of quickly referring to the good things in it.

Most journals have a volume index, but a hunt is always required to find a subject and then only a general title.

While reading one finds points to which he would again gladly refer, but the title does not indicate nor the index record them.

The remedy is to purchase a card index or make one if somewhat ingenious.

Large manilla envelopes, six by nine inches, should be procured for reprints and should be numbered.

The reprint is read, numbered, indexed by title, and especially desirable points indexed, and the reprint placed in the envelope of the same number.

The card in the index may show "Empyema. The Medical Aspect of, Babcock, envelope 38," and the reprint is readily found in envelope 38.

Journals may be lightened by tearing off the advertising pages, and should be piled (unless bound) in volumes on shelving and are made handier references by marking the abbreviated name, volume and number on the white margin at the bottom.

"Cholelithiasis, J. A. M. A., $\frac{775}{30-14}$," seen on the card in the index refers to the Journal of the American Medical Association, Volume xxx, No. 14. page 775.

As a special point under this, one may index "Empyema of the Gall-bladder," J. A. M. A., $\frac{775}{30-14}$.

To visit a public library and see how cards are arranged and indexed is an advantage.

The busy physician may teach some of his family to index by title, he merely underscoring the leading word and later indexing special points as he reads.

BOOK REVIEWS.

A Text-Book of Materia Medica, Therapeutics, and Pharmacology. By George Frank Butler, Ph.G , M. D. Third edition, thoroughly revised. Philadelphia: W. B. Saunders, 925 Walnut street. 1899. Cloth, $4.00; sheep or half morocco, $5.00, net.

This is the third edition of this excellent work within three years, thus showing the very favorable reception and appreciation of the work by medical teachers, students and physicians generally. In this edition nothing has been omitted by the author that would add to the completeness of the text, so that the student may be benefitted by the latest knowledge touching the topics considered. When the author has found it neeessary important changes have been made, a fuller treatment of certain subjects has been adopted, and unimportant details have been excluded in favor of new and more useful information. No branch of therapeutic science has, perhaps, been more neglected than a practical acquaintance with the nature and uses of materia medica, their origin, potency, and

characteristic value, as well as their physiological action, and the incompatible and synergistic agents upon which their efficacy often largely depends. I am glad this book has been written. It gives to the student a clear, concise, and practical text-book. The author has arranged the work from a synthetical classification of drugs, based upon therapeutic affinities. The first part of the book is taken up with Introduction, Pharmacology, and General Therapeutics, Classification of Medicines, Administration of Medicines, Definitions, Weights and Measures, and Pharmaceutical Preparations. After a clear discussion of these very important branches the work is divided into two classes. Class I. Medicines; class II. Symptom Medicines, with a final discussion of Topical Remedies, Prescriptions, and a good Index.

We have no hesitation in recommending this book to the favorable consideration of the profession, and more especially to that of the general practitioner, as a valuable aid in every day work. The publishers have presented the profession with a neatly bound and faultlessly printed volume.

A Text-Book of the Practice of Medicine. By James M. Anders, M. D., Ph D., LL.D. Illustrated. Third edition. Philadelphia: W. B. Saunders, 925 Walnut Street. 1899. Price Cloth, $5.50 net; sheep or half morocco, $6.50 net.

Dr. Anders has produced a good book on the practice of medicine, a book of nearly 1,300 pages. Its pages offer internal evidence that much labor and time have been spent upon it, and as the work of one man it is a creditable monument to industry, learning and good judgment. The present third edition, is the result of careful and thorough revision. Many new subjects have been introduced, and the other articles have been extensively raised. The book is divided into eleven sections. Section I. Infectious Diseases; II. Constitution Diseases; III. Diseases of the Blood and the Ductless Glands; IV. Diseases of the Respiratory System; V. Diseases of the Circulatory System; VI. Diseases of Digestive System; VII. Diseases of the Urinary System; VIII. Diseases of the Nervous System; IX. Diseases of the Muscles; X. The Intoxications, Obesity, Heat Stroke; XI. Animal Parasitic Diseases.

The preliminary chapter in the section on Nervous Diseases is new, and deals with the subject of localization and the various methods of investigating nervous affections. The leading symptoms have been more uniformly italicized—a modiffcation that cannot fail to prove helpful to the medical student. Under special etiology the bacteriology has been prominently mentioned, since we owe to it the rapid progress that is being made in the study of the causation of disease. The differential diagnosis has, in many instances, been tabulated. Such formulæ have been introduced into the text, and only such, as a more or less extended experience has shown to be possessed of real therapeutic importance. Whenever dosage is stated the metric equivalent is placed in parenthesis, the number of grains being placed in round numbers.

The index is full and carefully prepared. The paper is good and the print distinct and clear. The illustrations are well chosen. It is a pleasure to heartily commend the work to the profession.

A Laboratory Manual of Physiological Chemistry. By Elbert W. Rockwood, B.S., M.D., Professor of Chemistry and Toxicology in the University of Iowa. Illustrated with One Colored Plate and Three Plates of Microscopic Preparations. 5 3-8 by 7 3-4 inches. Pages viii-204. Extra Cloth, $1.00, net. The F. A. Davis Co.. Publishers, 1914-16 Cherry St., Philadelphia.

This little work of 204 pages if properly studied and applied will be of great use to students and physicians. The author is of the opinion that laboratory work is superior to that of didactic, believing that it is only by practical work that the student can become familiar with the physiological changes in progress in the animal body and their products. The writer has very wisely included with the directions for experimental work a brief explanation of the facts observed. The most common and most important experiments have been put in large and small type. Scattered through the book is found blank pages for additional notes. These experiments are very simple and easy to perform and requires a small stock of apparatus and reagents. The work is a useful one, well printed and bound. We commend it as worthy of study and application.

Saunders' Question—Compends No. 4. Essentials of Medical Chemistry, Organic and Inorganic. Prepared Especially for Students of Medicine. By Lawrence Wolff, M.D. Ffth Edition. Thoroughly Revised By Smith Ely Jelliffe, M.D., Philadelphia. W. B. Saunders. 925 Walnut St. 1899. Price $1.00.

Physics and chemistry receive very little attention and study as a general thing by the college student. This is due to their inability to study the subject thoroughly without encroaching in too great a degree on the time required for the more practical

branches of their profession. These quiz compends serve the same purpose as a quiz master bringing out the essential points in the form of questions which exact attention consideration before the adequate answers to them can be given. This little book will certainly give the student a better understanding of chemistry, and with it a greater care, or perhaps less of a distaste, for the pursuit in connection with their medical studies.

Saunders' Question—Compend No. 11. Essentials of Diseases of the Skin Including the Syphilodermata. By Henry W. Stelwagon, M.D., Phil. D. Fourth Edition. Thoroughly Revised. Illustrated. Philadelphia. W. B. Saunders. 925 Walnut St. Price $1.00.

In this compend of convenient size is given a clear and concise description of the various skin affections common to humanity with the most approved and appropriate treatment. A description of each disease with etiology prognosis and treatment is given. Several good illustrations are found scattered throughout the work. Properly studied and applied these compends serve a highly useful purpose.

Annual Report of the Supervising Surgeon General of the Marine Hospital Service of the United States for the Fiscal Year 1897. Washington: Government Printing Office, 1899.

The present volume is the twenty-sixth annual report of the Marine Service, and this is the one hundredth year of the existence of that service. The report is of very great interest and shows an increased activity in scientific effort among the members of this very valuable branch of the Government, and the Surgeon General, Dr. Wyman, is to be congratulated upon the high standard of excellence the service has attained under his control.

Bee-Line Therapia and Reperatory. By Stacy Jones, M.D. Second Eddition. Philadelphia. Boericke & Tafel, 1895. Price, Morocco, $2.00.

This little book as the title suggests treats the different subjects from a bee-line standpoint. The diseases are given in large black type and immediately following is the remedy. Everything is concise and directly to the point. It is handsomely bound in morocco and beautifully printed.

Transactions of the Texas State Medical Association. Thirty-first Annual Session Held at San Antonio, Texas, April, 1899, Austin, Texas. Von Balckmann, Schutze & Co., Printers.

No transactions come to our desk that present a neater or better appearance than the one before us which tends to show that the Society is in a prosperous condition. Dr. H. A. West, of Galveston, Texas, is Secretary. In looking through this volume we notice many valuable and meritorious articles.

LITERARY NOTES.

The Forum for November contains a number of articles of world-wide interest. Puerto Rico, Spain, Finland, France, China and America are touched upon by articles representing each country. Among the thirteen articles of vital interest may be found "How shall Puerto Rico be Governed," by Hon. H. K. Carroll, Special U. S. Commissioner to Puerto Rico. Hon. J. L. Curry, former U. S. Minister to Spain, gives many pungent points on "Spain, Living or Dying?" "The Finnish Question" is discussed in a masterly way by Prof. Rudolph Eucken, of the University of Jena, the leading spirit of the Finnish movement in Germany. Jacob Schoenhof shows, by Historical facts, "What the World Owes to France." "Civil Service by Special Training," by Hoffman Atkinson, sheds new light upon an important subject. Prof. William P. Trent, of the University of the South, writes in his most entertaining style an article on Mr. McCarthy's Reminiscences."

American readers will have an opportunity to become familiar with the most striking work which M. Rene Bazin, one of the most gifted of the younger French writers, has thus far done, in the translation of "The Perishing Land," which is to be published serially in The Living Age, beginning in the number for November 4. This story attracted wide attention on its publication in France, early this year. It is full of incident and of local color, and shows rare skill in the delineation of character.

Mr. Sylvester Baxter tells the story of "The Great November Storm of 1898," in the November Scribner's. One of the most destructive storms ever known on the New England coast, it was the occasion for many stirring incidents associated with the irresistible power of the wind and sea. Mr. Baxter gives a vivid impression of the development and climax of the storm, with many details, and of the gradual realization in the public mind of the great loss of life and property involved. The illustrations by H. W. Ditzler are from sketches made

on the coast during the week following the storm, and convey a spirited and realistic idea of many of the scenes along the shore and at sea.

The chief editorial topic in the American Monthly Review of Reviews for November is the war in South Africa. In "The Progress of the World" the editor gives a full exposition of the British and Boer sides of the quarrel, respectively. The subject is also treated in the department of "Current History in Caricature," and Mr. Stead contributes a character sketch of the "man of the month" in South Africa.—Cecil Rhodes.

ABSTRACTS of the One Hundred Leading Articles of the Month.

The Primary Lesion of Tuberculosis.

Since the infectiousness of consumption has been carefully studied the apices of the lungs have been relieved somewhat of their responsibility as the starting place of tuberculosis. Bovaird says that in children under five the primary lesion is regularly in the bronchial lymph nodes or lungs. That consumption may be brought on by drinking tuberculous milk is an established fact. The disease commencing as an intestinal catarrh with infection of the mesenteric glands.

The infection by fine dust from dried sputa, while possible, is perhaps the least likely mode of contracting the disease.

According to Weaver, in the New York Medical Journal for October 7th, intestinal infection is rare, but infected foods after digestion are poured into the left innominate vein through the heart directly to the lungs where the infection takes place.

The germ may enter through an abrasion in the skin, the mucous membrane of the nose, mouth or throat.

He concludes that the infection comes through food or moist germs inhaled and swallowed, and possibly through infection of tonsillar tissue.

In the great majority of cases the infection occurs in the posterior portion of the lung apex, that being the most vulnerable point, as a direct result of the discharge of infected chyle into the vena cava.

Should that portion of the lung apex be healthy, and not a suitable nidus for the germs, they may pass on with the current of blood to find lodgment in some other area, unless the blood has exerted its bactericidal power over them, when they may be removed by the action of the phagocytes (Klebs),

The theory of Cornet has not produced the results expected in the prophylaxis of tuberculosis. Then why consider such a rare possibility when we know that there is a stream of bacilli constantly flowing into the blood current through the lacteals, capable of producing the infection in the lungs?

Cancer of the Breast.

In the surgical treatment of cancer of the breast thorough removal of the breast and axillary glands is advocated by Lloyd in the Georgia Journal of Medicine and Surgery for October.

He reviews the developement of the surgical treatment of this disease and the wonder is why we were so long in recognizing the only safe operation.

He advocates cleaning out the axilla first so as to avoid squeezing out any infectious material by manipulation of the breast.

His method is as follows: Beginning in the axilla with an incision running along the anterior border of the axillary space and along the humeral margin of the pectoralis major until by reflecting the skin, with only enough fat not to disturb its nutrition, can be reflected backwards so as to expose the whole axillary space. The axillary vein is then exposed at the apex of the axillary triangle and the fat and glands carefully dissected away from it. As soon as the margin of the pectoralis is reached the skin over the muscle is dissected upwards until the humeral attachment is exposed. This is then cut away close to the humerus and the skin incision is carried down to make the upper incision for the removal of the breast. This upper skin flap is thus dissected upwards and inwards until the sternal and clavicular attachments of the pectoralis major muscles are exposed. The clavicular attachments are then cut away and all the fat and facia lying over the pectoralis minor is taken up with it, while this muscle is drawn down the skin flap is drawn up and the pectoralis minor cut through at about its middle. The upper portion of the muscle is then drawn up with the skin flap and the fat and glands and facia connected with the axilla and in the infra-clavicular space is dissected away. The posterior portion of the axilla is then cleared away, taking care to save, if possible, the subscapular nerves. The lower skin incision is then made and the whole mass of glands, muscles, fat, breast and fascia are removed *en masse*. It may be well, if the patient's condition is still good, to clean out the infra-

clavicular glands, but in order to do this the operation should not be prolonged beyond the limit of safety.

He thinks that it is better to draw the skin together as much as possible by means of sutures, even though some sloughing of flap does result, because the remaining ulcer is much reduced in size by that procedure. It then becomes a simple matter to do a secondary skin graft two or three weeks later if it is necessary. Drainage should always be employed in the axilla space and also in the infra-clavicular space as the removal of so much tissue leaves hollows that are sure to fill up with serum and blood which will otherwise have to be evacuated.

Before uniting the skin the pectoralis minor muscle is united by sutures. The after usefulness of the arm is but little curtailed by this operation. It is remarkable how well they can get along without the pectoral muscle, but they must be encouraged to exercise the arm freely as soon as the wound is sufficiently healed. In closing the skin care should be taken not to have any tension of the skin in the axilla in order to avoid cicatricial contraction and pressure upon the axillary vessels.

His mortality rate is less than 2 per cent.

Displacements of the Heart in Lateral Curvature.

Satterthwaite, in thh New York Medical Journal for September 30th, writes on the therapeutics of displacements of the thoracic viscera in lateral curvature.

He believes with Adams that the curvature is the *fons et origo* of the functional disturbance rather than the cachexia which is so apt to attend it.

He says the chief curvature is usually found in the dorsal region and to the right. and in all these cases the heart is displaced, the apex position varying from a point three-fourths of an inch to the right of the nipple to an inch to the left of it.

The treatment of the displacement then becomes the treatment of the curvature.

His general plan of treatment, varying according to individual cases, has been, (1) resistant exercises with forcible pressure; (2) carbonated brine baths; (3) massage; (4) Faradism; (5) nutrients.

His exercises are a little on the lines laid down in Roth's system but more severe and he prefers the system of Sayre to that of Roth. The system he uses is really a modified Hortelius, and consists of sixteen exercises.

Forcible correction, in connection with the exercises, should be used preferably with the hands of the operator.

Four cases are reported, all of whom were more or less benefitted.

In measuring a spinal deformity let the patient stand with the feet together, hands to the side, and shoulders thrown back, the head and body being held in as erect a position as possible. Then trace the spinous processes, the angles of the scapulæ, and the levels of the crests of the ilia on the bare skin with a dermographic pencil and take off a tracing with the ordinary vegetable-fibre tissue paper used by artists. Of course, antero-posterior curves do not show by this method.

He concludes that spinal supports are chiefly useful in mild cases as temporary expedients or as a last resort.

Hereditary Arthritis Deformans.

A case of hereditary arthritis deformans is reported by John S. Billings, Jr., in the Medical Record for September 30th, which later developed fatal pernicious anemia.

The patient was a woman, age 47, single. Her mother and maternal grandmother had suffered with the same affection, a chronic symmetrical enlargement of the carpal and metacarpal joints coming on late in life, without redness or heat, and with little pain or swelling.

The existence of the same disease in three generations of the same family, and all on the maternal side, would seem to be more than a coincidence. The theory that the disease is a trophoneurosis is better supported by the facts than any other. The wasting and hypertrophy which go on side by side, the trophic changes in the skin, so similar to those observed in definite neuro-arthropathies, and finally the well-attested fact that many cases arise during periods of grave mental distress and shock, all lead to the conclusion that arthritis deformans is to be classed among the trophoneuroses. And in no class of diseases is the influence of heredity more strongly marked than in the various neuroses; so that it is not difficult to understand that the condition, conducive to the development of arthritis deformans may, under exceptional circumstances, be transmitted from parent to child. The influence of heredity is difficult to reconcile with the other theories, however, and as the question of the causation of the disease is an open question, the question of its hereditary transmission must be left open also.

Taking everything into consideration, it is the writer's opinion that the case reported here is to be classed as one of pernicious anæmia, notwithstanding the absence of nucleated red corpuscles in the blood. Such absence points to inactivity of the blood-

making organs and is of grave significance.

A third point of interest in connection with the case is the marked lymphæmia. As stated above, a moderate increase in the numerical proportion of the lymphocytes is the rule. But occasionally such increase is very marked, as in the present case. Several cases of terminal lymphæmia of high degree have been reported in pernicious anæmia. The writer, while serving as interne in the Johns Hopkins Hospital, Baltimore, saw such a case, in which, for a few days before death, the leucocytes were 100,000 per c.mm., and of these ninety-nine per cent. were lymphocytes. If such a case was first seen at its close, it would be difficult to determine whether it was one of lymphatic leukæmia with marked anæmia, or pernicious anæmia with terminal lymphæmia.

Functional Cardiac Murmurs.

Accidental murmurs, though they appear to be cardiac, do not result from actual cardiac disorder, being at times even extracardial, says Jacobi in the American Medical Quarterly for September. They may depend on a variety of conditions as adhesions between the pleura and pericardium, with or without those between the two pericardial layers; change in the shape of the chest wall such as annoy the heart; and such murmurs may be produced by the pressure of the stethoscope on the flexible ribs of the young.

Functional murmurs are those which can not be explained by any anatomical alteration of a valve or of the myocardium. The causes are altogether too numerous, depending on the imagination or the diagnostic skill—or its absence—of the observer.

After careful study of the various assigned causes and conditions he concludes that the diagnosis of deranged function in any organ is only a makeshift and justifiable only as long as we are ignorant of the physical cause of that derangement. "Functional" is called the heart murmur, the anatomical cause of which we do not know.

That is why a skilled diagnostician may recognize fewer functional murmurs than one who will not diagnosticate a heart disease unless he have all the symptoms, including dilatation and hypertropy.

The same disorders of the blood and nervous system in which heart murmurs are observed in the adult, do not cause them in the small infant. In the latter the heart is larger, more robust, and more powerful, and its contractions are more uniform and effective; its two ventricles are equally muscular, or nearly so, and the valves are smaller. Thus the greater frequency of murmurs in the adult is attributable to the physical condition of his heart, and should not be explained by a deranged function.

Even in the present limitation of our knowledge we should agree to call functional only those murmurs which are temporary, or intermittent, or variable in their character. They are met with in the neurotic and neurasthemic, in the (adult) anemic, sometimes in syncope or in chorea minor, and occasionally in rheumatism, Even here they should be recognized either as myocardial or as neurotic,

Static Electricity for Sprains.

Snow, in the Journal of Electro-Therapeutics for October, says that electro-static treatment for sprains will produce very prompt and satisfactory relief where there is no rupture or laceration of the soft parts.

Even in other severe cases such treatment will afford more relief than any other. The method of treatment is as follows:

The patient is seated upon the platform with the negative pole grounded, the balls of the prime conductors being in contact; the affected joint being encased in a sheet or bandage of block-tin, closely moulded to the surface. With one cord connect the patient with the positive pole of the machine. Now start the machine and gradually open the spark gap until either the muscles are thrown into slight contractions or the patient complains of discomfort from the treatment. At this point, allow the machine to run from ten to twenty minutes. At the end of the treatment, upon removing the metal bandage, the surface will be found wet and the patient will be able to move the joint with freedom and without pain, if the treatment has shortly followed the accident and there has been no solution of continuity. In any event, the patient will have been greatly relieved and the conditions much improved. This is due to the prompt restoration of equilibrium—the general effect of electro-static currents in congested and painful conditions.

Obstructed Nasal Respiration.

One of our college professors would tell his class every year, that to be healthy, wealthy and wise, it was only necessary to keep the feet dry and the throat wet, the bowels open and the mouth shut.

Leland, in Annals of Gynecology and Pediatry for October, makes a strong plea for keeping the nasal passage free and open during respiration and the mouth well closed.

He draws an exceedingly dark picture

of the child who has adenoid vegetation in the naso-pharynx; or who from any other cause cannot breathe through the nose comfortably.

Such a child has a semi-idiotic expression which is but an index of the physical and mental condition of body as a whole.

To restore proper breathing space to such an one is to wave over their head the magic wand of health and vigor.

But after removal of growths, the patient or the parent or both should be taught the importance of breathing through the nose, otherwise they may return, or at least the good result will not be so marked.

He impresses the reader with the importance of education of the people along this line.

To breathe properly is as important and as essential to health and developement as to drink pure water or to eat good food and the law of the breath of Life is summarily comprehended in the injunction—*keep your mouth shut.*

The Amoeba Ciliata in Disease.

The relationship between malaria and septicemia, malaria and typhoid fever, typhoid fever and pneumonia and typhoid fever and purpura hemorrhagica is brought out by Graham in the New York Medical Journal for September 30th.

And the cause of all these will be found in the water we drink from day to day.

He takes a quart of water and collects the organisms present into a few drops and finds the following micro-organisms in their order of frequency: 1st. A coccus or diplococcus; 2nd, a bacillus, the *bacillus proteus vulgaris*; 3rd, the *amœba ciliata.*

The diatoms and desmids are omitted, as they are not at all pathogenic.

The amœba he cosiders the most important, as it is directly concerned in the production of acute infectious diseases. It may become a host for parasites or it may become a parasite itself and in either case it possesses a wonderful power to penetrate tissue.

A bacillus very much like, in fact identical with the typhoid bacillus, has been found in the amœba. Monads, very similar to those found in the blood of persons suffering from malarial infection, have also been found in the same place.

He also shows that the amœba is a true facultative anærobe, living without air under a sealed cover glass.

He calculates that a man who drinks a quart of hydrant water in 24 hours will swallow not less than 20 amœbæ.

In a number of acute infectious disease this amœba has been found in the blood, in the sputum, in the evacuations from the alimentary canal and in the urine.

A case of typhoid fever is reported in which the amœba was found in its resting form in the blood and urine.

In a drop of blood from a rosé spot some ovules were found and a few bacilli with a striking resemblance to the typhoid bacillus.

In another case which died of typhoid fever ovules were found in abundance over a year afterwards in a specimen of the urine that had been preserved. It was strongly alkaline and no other organisms could be found.

In cases of malaria, chronic hypertrophic rhinitis, dropsy, pneumonia and dysentery, malignant edema and purpura hemorrhagica the amœba was found.

From what is now known of this organism, the following may be formulated: 1. The type of disease which the amœba ciliata will produce is determined by:

The kind of parasite it carries.

The tissue or organ it invades.

Its distribution over a large, or concentration in a small area.

If the parasite is the tyyhoid bacillus, there is typhoid fever; if the bacillus proteus vulgaris, purpura hæmorrhagica; if a certain spirrillum, dysentery; if the pneumococcus of Frankel, pneumonia, etc.

The position often assumed, that for each region or tissue of the body affected, with accompanying distinctive symptom there is a specific infecting organism, is probably untenable. In pneumonia, for instance, the type of disease is determined by the fact that the pulmonary tissues are invaded. Had there been an invasion of some other tissue or organ by the same organism, carrying the same parasite, the type of disease would have been determined by the tissue or organ invaded—*e. g.*, abscess of the mid nle ear or of the liver, appendicitis, men ingitis, etc.

The infection produced by the amœba is mild or severe, according as they are diffused throughout the entire system or concentrated in a small area. Herein lies the chief danger from an invasion by those organisms, for it is their habit to often move in "schools," very much as an invading army enters the enemy's country—in a body. Where there is even distribution throughout the system by means of the lymph and blood currents, without concentration at any point, there results malaria or malignant œdema, according to the parasite carried. With concentration, for instance, in the pulmonary tissue, their would result pneumonia. Pneumonia, te

will be remembered, has been produced in the lower animals by injecting into the pulmonary tissues inert substances. Here the the foreign body acted as an irritant, resulting in obstruction of the lung, principally by the animal's own tissues.

The amœba ciliata is probably in itself of little or no pathological significance.

Its importance as a morbific agent is due to:

The protection afforded its contents from the action of destructive agents, whether mechanical, chemical, or thermal.

Its power to penetrate tissues and organs distant from the alimentary canal and that passive agents cannot reach.

Its penetrative powers are seen to best advantage in the study of amœba ciliata in its relations to other higher water organisms in which the tissues of both host and parasite, or invader, are transparent.

Where there is an invasion of a vital organ, resulting in interference with its normal function, the disease becomes very much complicated. To the poison from without is added the poison genetrated within, which would have been thrown off but for such interference.

Bouchard has estimated that in two days four hours a healthy man will excrete by the kidneys alone sufficient poison to have killed him but for its elimination. The amœba and its products are excreted principally by the kidneys.

Some of the white corpuscles in the blood and some of the pus corpuscles in the urine in a number of acute infectious diseases, and some subacute diseases are often nothing more nor less than the ovules of this same amœba.

He suggests that a probable function of the spleen is the arrest and destruction of embryonic forms of the innumerable minute organisms with which all natural fresh waters abound.

The Gastric Crisis of Tabes.

A study of twenty-five cases of tabes with gastric crisis is given by Basch, in the Medical Record for October 14th.

The patients were mostly of the laboring classes; seventeen were men and eight women.

Nineteen were between 30 and 40 years old, three were under 30 and three were over 40. There was no history of heredity of the crisis; a specific history was positive in only five cases, probable in three others; trauma was considered a possible etiological factor in one case.

The majority stated that their attacks came on suddenly without any assignable direct cause, a few regarded them as a consequence of mental excitement or of errors in diet. The length of single attacks varied from ten hours to six weeks, the majority lasting from one to seven days. The same patient would at times manifest a marked regularity and again a striking irregularity. The intervals between the attacks varied considerably.

The degree of intensity with which an attack began was also variable.

When attacks occur close together the patient will take very little food and so emaciation is the rule more marked in the corpulent. In case the interval is prolonged they regain their weight very rapidly.

In only five cases did the attacks begin with lancinating pains in the lower extremities. Vomiting was present in all the cases and pain was absent in three.

Pain when present was the most prominent symptoms, but in only one case did it begin in the iliac region. Vomiting usually ameliorated the severity of the pains or caused them to disappear altogether.

The quantity of the vomited matter was as a rule enormous.

The presence of hydrochloric acid was of no diagnostic value.

In all but two cases there was absolute anorexia during the crisis.

The abdomen was found more or less retracted, never protruding or tympanitic.

No fever or distinct chill, though there was a chilly feeling in almost all cases. Pulse from 110 to 130.

Except one case the sensorium was always intact, this one case had repeated attacks of syncope.

In the majority of cases the urine was markedly diminished and frequently darker than normal. In one case there was complete anuria.

A total change regarding the character of the attacks took place in two cases.

As complications two patients suffered from laryngeal crisis, two with enteric crisis and one with dementia paralytica.

The diagnosis may not be clear unless the tabes be well marked, so if it be one of the early symptoms the correct cause may be overlooked.

If gastric crisis be the only clinical manifestation, the diagnosis of locomotor axtaxia cannot be made with certainty, for this requires the presence of at least two classical symptoms. Since typical gastric crisis have well-defined characteristics, their recognition in time may at least serve to indicate the possible existence of the central nervous disease. These characteristics are: 1. Absence of symptoms of organic disease of the gastro-intestinal tract. 2. Sudden onset. 3. No initial chill. 4. Great intensity of

symptoms, sometimes rapidly, sometimes gradually increasing in severity. 5. Rapid pulse with no fever. 6. Absence of any local condition in the region of the stomach, and absence also of other factors to explain the severity of the symptoms. 7. Absence of specific diagnostic features in the vomitus. 8. External circumstances have no influence upon the natural course of the attack. 9. Spontaneous cessation. 10. Rapid convalesence.

The differential diagnosis brings up the careful study of ulcer of the stomach, ulcer of the duodenum, perigastritis, cancer of the stomach, gastro-succorrhea, cholelithiasis, functional vomiting, cerebral vomiting and uremic vomiting.

Gastric crisis admit of no prognosis in regard to durations or frequency.

The treatment is directed against two conditions, the attacks themselves and the intervening periods. For the pain morphine, the oxalate of cerium will affect the vomiting, but does not allay the pain. Antipyrin and nitrate of strychnine had some effect.

When the symptoms are acute the diet should be liquid, such as black coffee, cognac, champagne, tea, lemonade, milk, komiss. If pain is present they should be given hot.

Rectal alimentation necessary in severe cases. The diet should be carefully looked after during convalesence.

Specific treatment, even when seemingly indicated by the history exercises no beneficial influence whatever, either upon the character of the gastric crisis or upon the locomotor ataxia itself.

The general nutritive standard of all patients must be kept as high as possible,

Epilepsy.

Beach, in Treatment for October 12th, discusses the treatment of epileptics and imbeciles.

As regards drugs, bromide of potash and ammonium are most used. He says they should be administered for two years after the last fit, and in some cases in diminished doses for the third year.

Of course, every source of irritation should be carefully sought for and if found removed if possible.

During the convulsions the clothes should be loosed about the neck and chloroform inhaled. If there is a specific history the iodides should be given with the bromides. As for diet he omits meat and eggs for a time.

The "Colony" treatment is highly recommended.

Ventral Fixation of the Round Ligaments for Retroversion and Prolapsus Uteri.

Last month we abstracted an article from the Atlanta Journal-Record of Medicine by Noble advocating intramural shortening of the round ligaments for downward and backward displacement of the uterus.

In the Medical Record for October 14th, Lesser describes an operation for retroversion and prolapse in which he does ventral fixation of the round ligaments.

He makes a transverse incision from side to side about 25 cm, above the pubis, terminating about 2 cm. inside of the internal abdominal ring. This incision is made only down to the aponeurosis of the external oblique, when the cavity is opened in the median line. The uterus is then placed in position by means of the repositor, and the position of the ligaments and surroundings ascertained. A silkworm or kangaroo suture is then inserted with the hernia needle about 0.5 cm. inward from the outer angle of the incised skin, and passed horizontally, not through the skin, but through muscle, fascia, and peritoneum. While the outer end of the suture is held with forceps, the inner serves to indicate the place to which the ligaments should be attached. If the uterus is held in normal position with the repositor, the ligament can be picked up with pincettes almost opposite the suture, but before the needle is carried under it the exact place for the attachment should be measured. The needle is then carried under and around the ligament at the required place, necessarily taking along the broad ligament covering it. The thread should be long enough to allow the suturing while the ligament is relaxed again.

The hernia needle is removed, and the eye-point needle is passed parallel with, but 1 cm. below, the place of entrance of the first or descending suture. The eye needle is then threaded with the ascending strand of the suture, which is drawn up and out of the abdomen, and held there with forceps (after a little practice all can be done with the needle alone). A second suture is made through the abdomen and ligament in the same manner as the first and about 0.75 to 0.85 cm. inward from it. This may be done without measurement, but the distance between the sutures outside must be as nearly as possible the same as that between the sutures in the ligament; a third suture is passed at the same distance from the second, giving in all an attachment of about 1.5 to 2 cm. The ends of the sutures should be held outside with forceps, and not be tied immediately, so that the ligament may remain relaxed, to serve as a comparative landmark for the other side.

When all the sutures are in and before the ligaments are drawn up to be tied, abrade the portion of the ligament and peritoneum (by scraping with the scalpel or curette) along between the sutures, so that a union may readily take place and become more firm. After this the sutures on either side, beginning with the most outward one, are drawn up closely and tied firmly, but not too rigidly. The ends are cut short and buried under the skin and facia, which are then closed, preferably by subcutaneous suture.

Guaiamar—Physiologic Action and Therapeutics.

According to Butler, in the New York Medical Journal for Sept. 23d, *guaiamar* is the name given to a glycerol ether of guaiacol.

He says that it is a definite chemical prepared by the reaction between pure guaiacol and anhydrous glycerin.

It occurs in a white, dry, crystalline powder, soluble in twenty parts of water and can be combined with quinine, codliver oil, malt, hypophosphites and pepsin.

Its chief value is said to lie in the fact that nascent guaiacol is liberated in the stomach and intestinal canal.

The author reports good results in typhoid fever, though he used the cold water bath in addition. He also used guaiamar with good results in acute articular rheumatism, but always in conjunction with the salicylates. He recommends it in chronic bronchial troubles, consumption, erysipelas, puerperal fever and in various gastro-intestinal disorders.

The Induction of Premature Labor in Cases of Albuminuria.

Jarrett, in the Medical Record for September 30th, discusses some indications for the induction of premature labor. It is not considered the point to keep the patient from having eclampsia, but her future well being must also be considered. If she has a serious kidney affection that would be made the sooner fatal by allowing the case to go on to term though we might ward off any eclamptic attack then we should induce labor.

It is not held that the induction of labor means the cure of the kidney lesion, but to allow the pregnancy to go on throws such a strain upon the kidneys that they are hopelessly crippled and no amount of care during or following labor is sufficient to restore them to their orginal degree of usefulness.

The strain of a few months of pregnancy must be equal to years of ordinary wear and tear.

In cases with severe kidney disease the child is often born dead due to fatty degeneration of the placenta and it is not advisable in such cases to wait on the viability of the child.

As regards the method of inducing labor we cannot proceed as though the case was one of dystocia from bony malformation, but if the kidneys be damaged we must use the faster methods, for a few hours may mean life or death.

She considers the rapid forced delivery under anesthesia to be the safest. For forcing dilatation no instrument will compare with the hand.

The cervix should be fully paralyzed before extraction is begun, especially if version is performed as it has a tendency to retract encircling the head before it can be delivered. Pressure on the head from above, keeping it well flexed, favors easy extraction.

Bile and Putrefaction in Intestinal Acholia.

While the presence of bile in the intestines prevents abnormal putrefactive changes, this may be explained satisfactorily without having recourse to a specific antiseptic action of bile says Lerch in the New Orleans Medical and Surgical Journal for October.

The normal function of the bile is the neutralization and alkalinization of the chyme, the precipitation of the pepsin, the preparation of the mucous membrane, followed by the ready absorption of the continuously manufactured chyle, the rapid removal of the waste matter into the large intestines. But if bile is absent, all these functions are interfered with and instead we see the large number of micro-organisms constantly present, whose activity during physiologic conditions has contributed aid in digestion, multiply with enormous rapidity in a place that now indeed offers ideal conditions for their growth.

The human organism has been aptly compared with an engine. We can enlarge on this and say that during the daily and proper physiologic action there is nothing to note but the general wear and tear. As soon, however, as that process on account of some damage sustained is interrupted, the very oil which served as a protective and to make the various parts glide smoothly over one another now becomes the means of inducing a more rapid decay of the structures.

To say that the intestines do not furnish a proper soil for excessive bacterial growth

in health and that the tissues can take care of themselves is natural and explains fully and simply the phenomena observed in intestinal acholia.

To assume an antiseptic function of bile to prevent excessive putrefaction in the intestines is far fetched, not proven and not borne out by the facts.

Does this explanation assist us to treat our patients rationally in intestinal diseases? Whether the inflammation of the mucous membrane is located in the duodenum and bile duct or anywhere else in the tract, whether accompanied by absence or presence of bile, it is caused, according to our present views, in all cases by bacterial growths. This being due to a disturbance of the physiologic action of the organ, we will remove the cause, if any is discoverable, such as faulty ingestæ, and insist upon a physiologic treatment; that is, place our patient upon a proper diet and lessen the inflammatory hyperemia with the powerful means furnished us by hydrotherapy to control abdominal circulation. In the large majority of cases this will be found sufficient to restore the organ to its proper function. In the more severe cases, absolute rest and a suitable diet may become necessary, and astringents and antiseptics, cautiously administered, may be found of assistance.

Gaston's Method of Treating Inoperable Malignant Disease.

Fraser, in the Canadian Practitioner for September, reports a case of recurring malignant disease of the testicle and cord treated by electrolysis and cataphoresis after the method of J. McFadden Gaston and Betton Massey.

Coley's treatment with toxines was used but with no good effect.

The disease recurred seven times after removal with the knife, but was finally cured by the combined use of the knife and electricity.

Dr. Fraser concludes that electrolysis and cataphoresis, together with the internal administration of arsenic, are worthy of further trial.

Not being incompatible with operative or any other plan of treatment, cataphoresis may be judiciously combined with any other method in the treatment of a case in which success is not assured by that other method.

No case, either of sarcoma or of carcinoma, should be abandoned as hopeless until the effect of this method has been tried.

Removal of even a portion of the diseased tissue by the knife is indicated in any case in which rapid healing of the wound can be expected, thus lessening the work to be accomplished by electricity, and thereby hastening the cure.

In such operations the greatest precautions should be observed in order to minimize the process of granulation and secure rapid healing, ligatures being avoided if possible.

By an early recourse to cataphoresis recurrences may be prevented in many operable cases.

If good results have been secured in cases otherwise hopeless, and in which this treatment has been adopted only after several months' trial and failure by other methods, surely much more may be expected if given a fair trial in a wider field and in cases in which the system has not already been injuriously affected.

The Treatment of Apoplexy.

The importance of a correct diagnosis in the proper treatment of apoplexy is emphasized by Mettler in the Therapeutic Gazette for September 15th.

The methods of treatment are dissimilar in cerebral hemorrhage and embolic obstruction. In the one case we give a sedative, in the other a stimulant, and a venesection may hasten or retard the end.

If the case is one of hemorrhage a half reclining position on one or the other side is best. Cold in the form of cracked ice should be applied to the head and heat to the lower extremities. A cardiac sedative such as aconite or veratrum should be cautiously given.

If the case is one of embolic obstruction the reverse of all this should be done.

The patient's head is placed as low as possible, the cold and heat may be applied as before, but instead of a cardiac sedative a stimulant is indicated, such as alcohol, ammonia or even small doses of digitalis and ether.

We should look after the tongue if paralyzed as there is danger of suffocation; it should be pulled forward and the mouth swabbed out.

Plenty of fresh air, no constriction about the neck, and in the case of embolism the Esmarch bandage may be used to the lower extremities. Two or three drops of croton oil on the patient's tongue is good. Venesection he does not think of much use, but rather harmful, except in very sthenic cases, as the thinning of the blood lessens its tendency to coagulate and diminishes its stimulating power on the heart centers.

Leeches, mustard and blister may be used

in some cases, but if they irritate the patient they should be discontinued.

Diuretics are judicious and catheterization should be done as soon as indicated. The skin should be gently rubbed with tepid water and alcohol. Careful nursing is indispensable.

Faradism, massage and gentle passive movements when the acute stage is past. Avoid anything cold to the body. It is possible to re-educate the paralyzed muscle oftentimes, and the speech center may be trained to do better work than if left to recover of itself.

In traumatic cases, the trephine.

While he has little faith in iodide of potash, gold, arsenic, etc., as sorbefacient remedies, he recommends them as being beneficial in some cases.

The Causation of Night Terrors.

Authorities are divided into two main camps, one holding that night terrors are symptomatic of some organic disorder causing reflex stimulation. the other that they are due to central neuroses allied to epilepsy says Little, of London, in Pediatrics for October 15th.

He reports 30 cases to show that night terrors are caused by a reflex stimulation, produced almost always by dyspnea, moderate in degree but prolonged, occurring in the early hours of sleep of young children.

In seventeen out of the 30 cases there were definite valvular murmurs of the heart; in two others there was a rheumatic history with increased frequency and irregularity of cardiac action.

In five cases the cause could be narrowed down to enlarged tonsils and adenoids; in two other cases to chronic rhinitis.

In two cases there was obstinate dyspepsia. A previous history of epileptic attacks was had in one case with an epileptic family history.

In one case there was chronic urticaria pigmentosa very widespread and itchy.

The ages of the children varied from 6 months to 11 years, and there were 19 girls to 11 boys.

He concludes that in the great majority of cases night terrors are caused by disorders productive of moderate but prolonged dyspnea.

A preponderating number of cases are found in rheumatic subjects with early heart disease.

A considerable proportion of cases are due to obstruction of nasal cavities and fauces.

Digestive disturbances do not play the important part in causation that is often assigned to them.

The evidence for their causal connection with epilepsy or allied neurosis is scanty.

The attacks occur in the subconscious stage of early sleep, and are confined to young children under puberty.

Dermoid Cyst of the Ovary.

A case of dermoid cyst of the ovary, in a girl eleven years old, is reported by Fritts in the Annals of Gynecology and Pediatry for September.

When first seen she was acutely ill, great pain over McBurney's point, distension of the abdominal walls, tumor the size of a child's head at birth, temperature 102.5; hypodermic syringe showed pus. Diagnosis suppurating appendicitis. The following day an operation was done when the appendix was found healthy. Part of the fluid was removed by aspirator, when the tumor was withdrawn from the abdominal cavity and the pedicle ligated and divided. During the operation some of the cystic fluid escaped into the general peritoneal cavity, but the recovery was uneventful and rapid.

The suddenness of the pain, fever and other symptoms in a patient who had never complained before was sufficient excuse for the error in diagnosis.

After all it is not so much the proper *naming* as the proper *doing* that makes the real doctor.

The Diagnosis of Joint Tuberculosis.

The Canada Medical Record for October publishes from the Journal of Tuberculosis, a paper on joint tuberculosis, by Young of Philadelphia, in which he calls attention to the following points in making an early diagnosis. The age of the epiphysis; the condition of the nutrient artery; the effect of superincumbent weight; heredity, and traumatism. He thinks heredity plays an important part.

The two symptoms most positive of joint tuberculosis are spasm and atrophy.

Syphilitic disease most likely to be comfounded with tuberculosis of the joint, but in the latter we have no fluctuation, capsule not thickened; joint outline distinct and clear; motion limited; reflex muscular spasm present; marked atrophy; pain acute upon motion; night cries present.

In syphilitic disease we have slight effusion, capsule thickened, joint outline distinct, enlarged and indurated; motion limited; reflex muscular spasm absent; atrophy slight; pain moderate upon motion; night cries absent.

The X-ray is valuable in making the diagnosis, the appearance of the cartilages and bones being rough and irregular, while in chronic synovitis they are clear and distinct in outline.

The occurrence of abscesses is often of value in making a diagnosis, as the exact location of the primary focus of the disease may be frequently determined. Examination of the pus is usually negative.

Blood examination is important, as marked anemia or leucocytosis is frequently a forerunner of tuberculous outbreak in a joint.

The Tuberculosis Crusade.

Scientific medicine is beginning to feel her strength. Coming so slowly from the weakness and feebleness of superstition she has been over-cautious about lifting at a heavy weight until to-day it is only lack of practical application of her power that constitutes her weakness.

Denison, in the Journal of Tuberculosis for October, discussing some of the problems of the tuberculosis crusade lays out the following outline of practical work. In the first place he considers it an educational matter, that there must be a universal conviction of the importance of the crusade.

Proper enlightenment of the people will be certainly followed by conviction.

It should be developed along three lines.

1st. Etiology or Cause. a. Historical and Statistical. b. Degenerative. c. Bacterial.

2nd. Prevention. a. Hygienic. b. Reformatory. c. Legislative.

3rd. Treatment. a. Hygienic. b. Climatic. c. Reconstructive. d. Specific or Germicidal.

Rickets.

Potter is a firm believer in the existence of this disease oftentimes at birth.

In the Annals of Gynecology and Pediatry for September, he says that the prcper food of a child is mothers milk alone until it is eight or nine months old.

The various infant foods he considers harmful.

He calls attention to the fact that the child in this disease may show a perfect or excessive development of fat.

The dangers in this disease are from convulsions, laryngismus, or from aggravated bronchial attacks.

The bony changes are characteristic and best seen at the ends of long bones.

The early signs are sweating of the head, dislike to being covered at night, tenderness of the body generally, heading of the ribs and the thickening of the wrists.

The treatment he recommends is fresh air, proper food, avoiding starches, cod-liver oil, iron, lactophosphate of lime, and phosphorus. The child should not be allowed to walk without braces.

Persistent deformities demand surgical treatment.

The Art of Diagnosis.

It is not so important to know by what name to call a disease as it is to know what the disease really is, says Benedict of Buffalo, in the Medical Age for September 25th.

He believes that the physician is a good therapeutist and a successful diagnostician when he cuts loose from the idea of tying a drug and a symptom to a disease name.

One may understand very well and treat successfully a disease to which he cannot assign a name or he may call a disease by name without knowing in the least what it is.

To draw a fine line between symptoms and signs is not possible as the same symptom may be both subjective and objective.

The sense of smell and hearing has been relegated to a lower intellectual plane than sight, but we need the aid of all these.

Inspection is, however, the culmination of physical diagnosis as in exploratory laparatomy and in bacterial disease. The X-rays have rendered inspection possible in fractures, dislocation and foreign bodies including some calculi.

Inspection of the blood and urine, of the stomach contents, feces and various other mixed and unmixed secretions are means of diagnosis.

Skilled diagnosis depends upon skilled sight, hearing, touch and smell and the use of symptoms and signs that are far from being positive indications of any particular disease.

Some signs not diagnostic at all are usually of most help as indicanuria, cachexia, etc.

The writer concludes with a plea for a simple, common-sense spirit in diagnosis that will lead directly from manifestation to immediate cause and will stop there, unless other circumstances warrant the drawing of more general conclusions. Let us drop the folly of a search for pathognomonic signs as mathematicians have abandoned the attempt to square the circle, and when some eminent authority, native or German, assures us that he can diagnose the existence of a rennet ferment in the moon because he has demonstrated the presence of green cheese there, let us not be too

deferential, at least not to the extent of doubting our own senses more than once or twice in succession. The commonest politician knows that to control men he must understand the divers qualities that make up their individuality, that it is not enough to remember their names and faces: So the physician who expects to manage disease must not only be able to recognize it and call it by name, but his diagnosis must be what the name literally means—a thorough knowledge.

Chronic Gastric Catarrh.

Reed, of Philadelphia, discusses the diagnosis and prognosis of ordinary chronic gastric catarrh in the International Medical Magazine for October.

He says it is not possible to make a certain diagnosis without the use of the tube and the more important quantitative tests of the stomach contents. The advanced cases with pain and vomiting may be confounded with cancer or ulcer and the earlier or milder ones may be mistaken for nervous dyspepsia. So then the stomach contents must be carefully examined macroscopically, chemically and microscopically. If there is entire absence of mucus in the sample there is not likely to be any inflammation of the gastric mucous membrane.

A diagnosis of chronic gastric catarrh cannot, therefore, be based upon even the symptoms and macroscopic findings in the wash water combined until after at least three or four washings, unless the symptoms are very pronounced, as in serious cases, or the amount of mucus is very large. Fragments which under the microscope may show the condition of the epithelium are more likely to be found in the wash water after lavage than in portions of the stomach centents after test meals. But this, too, is a somewhat uncertain dependence, and negative results, such as finding pieces of glandular tissue showing normal cells, is no proof of the integrity of the entire membrane.

The prognosis, like that of the acid form, is good or bad according to the stage and grade of the affection as well as the age of the patient, and according to the ability and willingness of the latter to make sacrifices and patiently carry out a somewhat troublesome treatment. Those who desire to be cured without help from a tube, and especially without much change from the habits of eating, drinking and exercising, or more often, not exercising, which brought the disease upon them, may be safely promised that they will keep their gastric catarrh to the end of their lives, which will generally be considerably shortened thereby. Cases in which the glandular structures have not been much damaged and in not too old or debilitated persons, can usually be cured in a few months, when the proper treatment is faithfully and persistently carried out.

High Amputation of the Cervix and Vaginal Suture Preliminary to Abdominal Hysterectomy.

Babcock, in the International Medical Magizine for October, says that a supravaginal method of abdominal hysterectomy is best in most cases where there is no malignant or infectious disease, but in other cases currettage and cauterization or after the broad ligaments are ligated and divided the abdominal wound may be closed and the operation completed by the vagina.

He reports a case in which a modified reversal of this latter method was used with success. The patient having been etherized and the field of vaginal operation asepticized, the cervix was pulled down by a pair of tenaculum forceps and was encircled by an incision to the depth of the cellular plane.

With continued traction upon the cervix, the adjacent tissues were carefully pushed off until the uterine vessels were exposed. These vessels were ligated with catgut and the cervix amputated at a high level. A provisional mattrass suture of heavy silk was immediately introduced in the amputated face of the cervix in a manner to occlude both the oozing vessels and the divided cervical canal. Mattrass sutures of catgut were then introduced to completely close the incision in the vaginal vault. Before these sutures were tied the cavity above the vagina was thoroughly irrigated and firmly packed with iodoform gauze. This packing served not only to limit any remaining oozing, but also tended to elevate the tumor in the pelvis, to push the uterus, bladder and rectum from its lower portion, and to serve as a guide at a later stage of the operation. The sutures in the vagina having been tied, a supporting tampon of gauze was introduced into the vagina, the peritoneal cavity as yet not having been opened.

The second part of the operation was now begun by the conventional median incision through the abdominal walls. After liberating a few adhesions between the intestine and the tumor, the ovarian and round ligament vessels were ligated on each side and the upper part of the broad ligaments divided. Connecting the broad ligament incisions by an incision across the face of the tumor, the bladder and broad ligaments

were stripped down. Some hemorrhage occurred during the division from the left uterine artery and both uterine arteries were retied individually with fine silk. Guided by the gauze packing, the remaining structures were divided and the tumor (a globular fibromyoma with central necrosis), ovaries and gauze removed, the procedure being greatly facilitated by the fact that it was not necessary to interfere with the vaginal vault.

After suturing in turn the pelvic cellular tissues and the peritoneum over the vaginal stump with continuous sutures of fine catgut, the gall bladder was palpated for calculi and the abdominal incision closed, in layers, by buried sutures of chromicised and plain cumul catgut. The convalesence was afebrile and associated with surprisingly little pain.

Tuberculosis and the Throat.

This title is used by Strangways, in the Medical Age for September 25th, in speaking not only of tuberculosis of the throat, but also of the throat in patients threatened with active tubercular trouble, or who have tuberculosis in other organs but no visible infiltration or ulceration in the throat.

In cases where there is neither ulceration or infiltration he mentions a peculiar pallor with a blotched appearance of the larynx as indicating a threatened attack of tuberculosis.

With transient flushings, especially if the vocal cords do not approach each other in a normal manner, we should recognize a condition as serious omen to the patient.

These conditions may for years antedate the actual outbreaks of tuberculosis, and proper treatment may abort the treatened attack, hence these symptoms are of the utmost diagnostic value.

If in a case of suspected incipient tuberculosis he finds the larynx and pharynx normal in appearance the suspicion is not mentioned, but if the pharynx is pallid, the larynx of a dull gray color and faulty approximation of the cords the patient is advised to use every precaution against the probable development of consumption. Another premonitory symptom of importance is an intractable one-sided catarrh of the larynx.

The chronic catarrh that is a forerunner of tuberculosis is never intensely red nor does it produce much thickening. The color is dull and nasty, the muscles are not very active. Local applications and internal remedies influence it to a very limited degree. The common people believe that catarrh may run into consumption, and as far as this particular type of catarrh is concerned, they are right.

Active tuberculosis of the pharynx is infrequent, but is invariably fatal in a short time.

In tuberculosis of the larynx we have faulty movements of the cords, a dull, grayish color and some tumefaction. His observation shows that one-fifth of all cases of tuberculosis have laryngeal complications.

Palliative treatment is all that can be done.

The Prevention of Tuberculosis.

There can be no contagion without abnormal cellular conditions, says Strueh, in the Medical Record for September 23rd.

He therefore reasons that our efforts should be directed towards influencing the cellular life by hygenic means, instead of making it a principal aim to avoid or destroy the bacilli.

As the mission of the vermin is to force mankind to cleanliness, so the mission of the bacillus is to compel us to live according to the laws of nature.

The bacilli must find already diseased cells upon which to fasten and grow disease and death.

Only by perfect public and personal hygiene will we be enabled to prevent the spread of tuberculosis and not by one-sided measures such as the slaughtering of tubercular cows. We should consider the abnormal conditions under which these cows are kept which renders them liable to infection.

To prevent tuberculosis we must live as nature demands.

It is true that this will demand many a sacrifice of us, the denial of many an enjoyment and pleasure that have come to us through civilization; but we must make these sacrifices, lay upon ourselves those denials, if we desire to reach a happy end and help to bring about the time when the world will be populated with healthy human beings again, when so frightfully large a percentage of the race will no longer fall victims to tuberculosis as is the case at present. We must learn to live according to the laws of nature, and we must bring up our children in conformity with them. Only in this wise shall we free after-generations not only from tuberculosis, but from most chronic diseases which we have created ourselves. All attempts to prevent the spread of consumption in any other way, however well meant, will prove futile. Let the means employed appear ever so scientific and plausible, we shall at last come to the conclusion that we attempted the im-

possible. The late congress for the prevention of tuberculosis seem to have arrived at the same conviction. Not from the use of tuberculin or from chmeicals, not from one-sided ineffective measures can we expect material success in the prevention and cure of tuberculosis, but only and alone from a strict observance of the ever true and inexorable laws of nature.

The Technique of the Operation of Celiotomy.

To open the abdominal cavity is a very small matter; to get ready for the opening requires carefulness, patience and time.

Beyea, in the University Medical Magazine for October, tells how they get ready at the University Hospital and reports one hundred and forty-one consecutive celiotomies with three deaths.

The preparation of the patient takes from three days to a week. Two thorough examinations are made during this time. A chemical and microscopical examination of the urine is made and recorded. Tincture of digitalis 10 ♏. and sulphate strychnia 1-20 grain are given three times daily and if indicated a diuretic.

The bowels are opened daily, and a daily bath is given with a vaginal douche of one gallon of hot water night and morning.

The special preparation of the patient begins 24 hours before the operation. Dram doses of Rochelle salts are given every hour until the bowels move freely, light, easily digested food.

No food on the morning of the operation unless the patient is very weak, when a glass of milk, coffee or milk punch may be given.

Eighteen hours before the operation she is given a warm bath from head to foot, the abdomen is scrubbed, the pubes and external genitals shaved. A sterilized nurse then washes and scrubs the abdomen and anterior aspect of the upper third of the thigh, first with turpentine, second with green soap, third with sterile water and last with 1 to 2000 bichloride when the abdomen is left covered with wet dressing of the latter solution.

The anus, external genitals and the vagina are scrubbed with green soap for twenty minutes and followed by enough hot sterile water to rid the surfaces entirely of soap.

The following morning the abdomen is again scrubbed in a similar manner, the vaginia being prepared in every instance as though the operation would be performed through it. The lower bowel is thoroughly emptied by an enema of soap and water three hours before operating.

The patient is catheterized immediately before entering the operating room.

The operating clothes, sheets, towels, the operating clothing of the surgeon, assistants and nurses are sterilized in a Sprague sterilizer which is kept at a temperature of 240 deg. F. and 15 pounds pressure for two hours.

All dressings, gauze drains, etc., are sterilized in the same sterilizer for three consecutive days, two hours each day.

For ligatures and sutures, silk, silk worm gut, catgut and silver wire are used.

The catgut is sterilized by the formalin method, placed in absolute alcohol in a metal cylinder and sterilized in the Sprague.

The water used during the operation is prepared by filtration and heating by steam to 250 deg. F. under fifteen pounds pressure.

Instruments are boiled for 30 minutes in a 1% solution of carbonate of soda.

All apparatus are prepared by scrubbing and washing with bichloride.

The operator, assistants and nurses must all carefully prepare themselves and the most rigid discipline is maintained during the operation.

Unilateral Ophthalmoplegia.

Lloyd, in the University Medical Magazine for October, reports a case of unilateral ophthalmoplegia with involvement of the fifth nerve in a woman, age 67.

The right eye was the one effected, pupil immobile, no reaction to any stimulation, media clear, complete atrophy of the optic nerve, arteries smaller than normal, some protrusion of the ball, anesthesia of the cornea and conjunctiva, complete ptosis and total blindness. The left eye was normal for vision. Although there was involvement of the fifth there was no pain, he thinks this indicates that the lesion is not an actively necrotic one, but perhaps a benign neoplasm slowly making pressure without irritation.

He considers the lesion as being anterior to the Gasserian ganglion because the mator branch of the fifth is involved and because the pressure must be posterior to the orbit and yet anterior to the ganglion to involve at the same time the orbital nerves, the optic nerve and the various divisions of the fifth and lastly, because the left eye is not at all involved.

A lesion of the midbrain, for instance, which, of course, might involve the nuclei of some of the orbital nerves, would not cause a unilateral optic neuritis, on the one

hand, nor a unilateral total and complete ophthalmoplegia, on the other. Such a midbrain lesion might and probably would, cause optic neuritis as an early symptom, but the neuritis would almost certainly be in both eyes; while, as for the ophthalmoplegia, a one-sided midbrain lesion could only cause paralysis of the third nerve, and possibly of the fourth, but by no chance of the sixth.

This is the third case of ophthalmoplegia reported by this author in the past two years, (see *Annals of Ophthalmology* January, 1898, and *Philadelphia Medical Journal* June 3rd, 1899).

Drainage in Surgery of the Appendix.

Where the abscess is localized, drainage is right and proper, but if pus has entered the general peritoneal cavity then the ordinary method of drainage is irrational and ineffective, says MacLaren, in the Medical Record for October 28th.

His objections to drainage in these cases are two, first, because it is an impossibility and second, because there is another procedure, which is feasible, more rational and must give better result.

This procedure is to leave the cavity filled with normal saline solution. This he believes increases the resisting power of the peritoneum to infection by diluting the poison, by increasing the area of the peritoneum incited to resistance, and by bringing the infection slowly against the resistance as the fluid is absorbed.

Two cases are reported in which this procedure was attended with complete recovery though there was general infection of the peritoneal cavity.

Infantile Syphilis.

In the diagnosis of infantile syphilis, Jones, in the Hot Springs Medical Journal for September, mentions the following points. In well marked cases the wizened anemic appearance, hoarse cry, snuffling, erythematous eruption and mucous patches.

In all cases the health of the mother should be carefully investigated.

In examining the child's body for rash we should remember that often seen on the buttocks and about the pudenda resulting merely from lack of care in changing the napkins.

He recognizes two indications in the treatment—the cachexia and the malnutrition.

He quotes with approval the following rules of Fournier for the prevention of hereditary syphilis:

"Whenever the fœtus is threatened with syphilis of paternal origin, it may frequenly be prevented by treating the mother during her pregnancy, however healthy she may be herself. The essential part of the treatment is mercury; iodides are not nearly so efficacious. The particular preparation of mercury chosen must depend on the case, but, other things being equal, Fournier prefers the green protoiodide. It must be remembered that the fœtus, and not the mother, is being treated, hence small doses are sufficient in the author's experience (1-130 gr.). To be of use the drug must be begun as early as possible, and continued to its termination. Before the fifth month the treatment usually succeeds, if begun later it almost always fails. Success in the treatment of the fœtus through the mother is so common that it is the duty of every practitioner to apply it. The child will not only be carried to term, but when born will be perfectly healthy, and show no signs of syphilis."

Mercury in the form of gray powder is the best for the child.

As tonics, he mentions codliver oil, syrup of the iodide of iron or one of the bitter tonics.

The external application may be made in the form of a bath, 10 grains of corrosive sublimate dissolved in the bath in which the child may remain four or five minutes. This method may be useful when the skin eruptions are troublesome or when the internal administration disturbes the digestion.

Great attention must be paid to cleanliness and to the diet.

For the tertiary stage he recommends the perchloride of mercury in solution combined iodide of potash. For local application mercurial ointments and iodoform are most useful.

Teratoma Testis.

Sturgis, in the American Medical Quarterly for September, reports a case of cystoid disease of the testicle which he thinks was teratoma.

The tumor seemingly developed from a bruise from riding a bicycle.

The diagnosis apparently lay between tuberculosis and cancer, but after removal and examination it was found composed of several materials. A very vascular connective tissue containing fairly large round and spindle cells and embryonal connective tissue. In addition to this was found adenoma, carcinoma, cartilage and nonstriated muscular tissue, interspersed in this stroma were found cavities full of pus and necrotic detritus.

The cartilage is scattered about the tumor,

in some points showing the beginning of bone structure, and the cysts which are formed would appear to be not primary cysts, but formed by the destruction of tissue which at first was solid, and perhaps either sarcomatous or fibro-cellular. These cysts vary in size, and are found to be lined with squamous and cylindrical epithelium, and in some of the cysts there seems to be offshoots of papillary growth. Certainly with tissue derived from so many blastodermic layers, it might readily, from the pathological point of view, be regarded as a teratoma of the testicle.

The paper closes with a study of forty published cases, tabulated and illustrated.

Hemoglobinuria.

Brasher, in the Denver Medical Times for October, reports two cases of hemoglobinuria, one in a child of 3 years, the other in an infant only a few days old.

In the first case the mother and infant had died with a similar affection when the child of 3 developed the disease.

Both cases recovered with the use of intestinal antiseptics, chiefly calomel.

The infectious form was apparent in the first case, while in the last neither the mother nor the other child, 2 years old, showed the slightest symptoms of the disease. From the fact that the return to the breast milk, after the first intermission, was almost immediately followed by increase of skin discoloration, with more frequent and violent convulsions, and the latter ceasing with free purgation and a return to the cream solution it seems probable that the toxic element came from the breast milk, from which it probably disappeared during the second intermission, during which time the mother was subjected to intestinal disinfection and required to take plenty of outdoor exercise.

Tuberculosis Adenitis.

Pediatrics for October 15th has a very practical paper by Morgan, of Brighton, on tuberculous adenitis of the head and neck.

He considers it nothing like so common as it was fifteen years ago.

The chief points of interest in the etiology concern the soil, that is the tuberculous individual, the paths by which the seed, that is the tubercle bacilli travel to the glands.

The tubercular predisposition may be wholly inherited or acquired or a slight hereditary tendency may be markedly emphasized by a vicious environment.

Instead of classifying the glands as superficial or deep, he classes them as draining a mucous or a skin surface only.

Tubercular adenitis is much more common in those glands draining a mucous surface.

The order in which the different glands were affected in his cases are as follows:

1. Upper division of the deep cervical.
2. Sub-maxillary, especially near the angle of the jaw.
3. Suprahyoid.
4. Lower division of deep cervical.
5. Parotid.
6. Superficial cervical.
7. Posterior auricular.
8. Occipital.
9. Internal maxillary, or deep facial.
10. Posterior pharyngeal.
11. Lingual.
12. Buccal.

In glands that drain mucous surfaces there are three sites especially favorable for the entrance of the tubercle bacillus, teeth and gums; tonsils; naso-pharynx, especially the vault when affected by adenoids.

In glands that drain skin surfaces the point of entrance is a superficial wound, eczema, impetigo, porrigo, etc.

In the treatment he recommends careful diet, frequent examination of the throat, naso-pharynx and gums; loose or carious teeth should be removed; cavities should be thoroughly disinfected and filled. Adenoids and enlarged tonsils should be removed.

Codliver oil after grey powder and alkaline mixture for a few days.

Fresh air, sunshine, tepid seabathing followed by friction.

In the local treatmeut the point of probable entrance should be carefully attended to. For instance if the glands at the angle of the jaw and the deep upper cervical are enlarged treat the tonsil and the glands will subside.

He uses the following prescription to paint on the point of entrance:

Iodine,	12	grs.
Potass, Iodid,	15	grs.
Ol menth. pip.	2	♏.
Glycerine,	ʒi	

While this may not affect all glands, if applied before softeniug takes place it will undoubtedly reduce the majority.

Of the old method of direct injection of iodine into the gland he says it invariably spoiled the syringe, injured the child and damaged the surgeon's reputation.

If after a fair trial with local and constitutional treatment they continue no better the sooner they are removed the better.

For those completely broken down it is

better to incise, currette and dress the inside of capsule with pure carbolic acid than to attempt to dissect out entire, as it is almost certain to burst and by the dissection the connective tissue around the gland has been opened up and the infection may be carried thereby to other glands.

In excising glands, no pressure should be made on the gland, either by the fingers or by pressure of forceps of the various special types. If several in a group are affected, the lower one should be taken first, working up in the opposite direction to the lymph current. The danger of pressure is, that some of the tuberculous material may be pressed from the medulla of the gland into the efferent vessels, the valves of the lymph vessels allowing the current to passs by way of the efferent vessels, and preventing its passage into the efferent vessels. To my mind this is the only explanation of a quick relapse a few days after the excision of glands.

Digitalis.

This old and well tried remedy is discussed by Washburn in Merck's Archives for October.

He says that it is indicated in all those forms of heart disease in which there is weakened heart action, together with low blood-pressure in the general arterial system, and resulting malnutrition of the heart muscle.

In chronic valvular disease of the heart with failing compensation the blood-vessels throughout the body have lost their tone, and the blood as a consequence is forced through the capillaries almost entirely by the contractile force of the heart unaided by the elasticity and muscular power of the arteries.

In such cases digitalis, in proper and properly timed doses, has a marked effect for good.

He is skeptical about any bad effect from this drug even in cases of aortic insufficiency. This drug is slowly absorbed and slowly eliminated, therefore we should not give our doses too close together.

One grain of the powdered leaves or its equivalent may be given every 12 hours for months and years in appropriate cases with no cumulative effect whatever.

He summarizes that digitalis is seldom required in chronic valvular disease during the period of complete compensation. When the stage of broken compensation is present it is urgently demanded, in all forms and combinations of lesions, in proportion to the degree of cardiac weakening. When given in doses of more than 2 or 3 grains of the powdered leaves, or the equivalent thereof, in the twenty-four hours, symptoms of saturation are to be anxiously watched for when from 30 to 40 grains have been administered, and the drug discontinued for a few days or the dose reduced as soon as they appear. The drug is thereafter to be continued in tonic doses.

Finally, tonic doses of digitalis are always useful in the treatment of weak, neurotic hearts.

Puerperal Sepsis.

A very interesting case of general infection following some time after labor is reported by Pollock, in the Maryland Medical Journal for September 30th.

The labor was short and easy, but there was severe post-partum hemorrhage and retention of the placenta which was delivered by hand when the excessive bleeding stopped.

For two weeks the patient did well, when the left leg became swollen and edematous with pain.

She gradually improved under appropriate treatment and ten days later was taken with intense pain in the right costal region, temperature 102, pulse 114.

Under proper treatment she slowly improved for two weeks when suddenly the temperature shot up to 104, pulse 130, respirations 34.

After an illness of ten weeks she recovered pefectly.

The uterus was not curetted, as the infection was remote from the probable source and the late appearance of the trouble, nearly three weeks after labor.

She very properly thought that curetting at this stage would only add to the area of absorption. The conditions surrounding the patient were unalterably unfavorable.

The treatment after the hemorrhage consisted in tonics and milk diet, with two vaginal douches of bichloride 1-2000 twice a day. The tonic was iron, quinine and strychnia. When the first symptom of infection appeared, to the above was added purgation by Rochelle salts, a teaspoonful of salts in enough water to dissolve it every hour until watery evacuations occurred, and if no bowel movement could be had in three hours a laxative enema,

℞	Glycerine,	ʒi.
	Rochelle salts,	ʒi.
	Castor or olive oil,	ʒi.
	Water,	ʒviii.

retained as long as possible. This was repeated every hour or half-hour as indications demanded. For the pain salicylate of cinchonidine gr. 2 every three or four

hours, and morphia, were given, morphia likewise to produce sleep.

As purgation is vigorous, so, too, is stimulation when once it is needed, and nitroglycerine takes the place of whisky or brandy when the latter are not at hand. It is safe and quick in action and causes very free diuresis; it can be given for prolonged periods of time.

Digitalis and strychnia are her next standbys, and after these tonics, iron, cinchona tincture, peptonids and good light food, preferably milk and eggs, and scraped broiled meat (beef). And most important, rest, complete rest in bed for three weeks at least after all symptoms have subsided.

Acute Septic Rhinitis of Childhood.

Tissier's classification of the acute inflammatory affections of the nasal mucosa is accepted by Somers, in the Laryngoscope for September, as being the most valuable.

He divides them into three classes: simple, due to atmospheric changes; membranous, due to streptococci; purulent or septic, probably due to the gonococci.

Somers thinks that, in this country at least, the latter is caused by the ordinary pus organisms and rarely from specific infection. He reports a typical case in a boy four years old.

Infantile purulent rhinitis, especially among the lower class, is frequently of syphilitic origin. In older children a number of causes may be operative, as insanitary surroundings, traumatism, irritating vapors, and in all cases the streptococci and staphylococci are found.

Occasionally it follows the acute infectious diseases.

The differential diagnosis will include nasal diphtheria, membranous rhinitis, syphilis and a foreign body or a rhinolith.

In the treatment we attempt to improve the general condition and restore the patency of the nasal chambers and antisepsis.

Mercury if syphilitic, iron in all cases.

After careful cleansing with alkaline spray and peroxide of hydrogen, he covers the parts with a spray of mentholated oil (1 to 2 per cent.) or an ointment of yellow oxide of mercury (1 grain to the ounce of lanoline).

Irrigation after the method of Dedieu he considers dangerous, as there is a liability of aural infection.

If nasal obstruction is persistent preventing the child from feeding, the turbinals should be painted with a 1 to 2 per cent. cocaine solution, followed by ½ per cent. solution of antipyrine. The cocaine should be applied only to the area of greatest enlargement to avoid any serious consequence.

Temperament and Disease.

"The new humoral pathology" was the subject of a paper by Sterne of Indianapolis, read at the Chicago meeting of the Miss. Valley Medical Association.

He considers normal physiologic-chemistry as the *art* of living, as health; the abnormal as the *ab-art* of life, the aberration, as disease.

The question then arises simply, what constitutes health, and whence arises disease? Health, the expression of normal animal economy, depends upon three conditions, namely, assimilation, reaction and disassimilation (Lyman). All matter serving as fuel to the organism must be taken up, must be converted from mere inert substance into living particles (assimilation), carried to the various body-organs and tissues where it exerts its functional purposes (reaction), and thence, with other useless products of the chemical changes, is conveyed to the emunctories, and reappears once more as non living excreta (disassimilation). This cycle is nutrition in its broadest sense; is the physiological-chemistry of life. To its fulfillment certain conditions are necessary, comprising the material and spiritual elements of the organism. These two represent the body-construction and the body-temperament, terms in use for ages, but vaguely understood. Notably is this true as regards temperament.

Philosophic temperament has handed down to us a temperamental classification, in vogue even at the present time, which has a certain justification, viewed exteriorly. In reality, however, it is founded upon a misconception of the term "temperament." The old classical distinction of temperament formed a quarternion, or a group of four, to-wit: 1, the choleric; 2, the melancholic; 3, the sanguine, and 4, the phlegmatic. These designations have maintained themselves, with slight changes to our day, though they rest upon more or less groundless theory. It is true that from the study of the vast mass of individuals, such grouping as the above seems correct, but its sole support is an outward manifestation of temperament, not the underlying forces, itself. From time to time other theories of temperament have been advocated (Cabanis, Paulhan, George, Wundt, Lotz,) but all of them rest upon the erroneous foundation of eternal adornment.

Wundt (Physiolog. Psychologic Vol. 2, p. 345 f.f.) accepts the four-fold group, but insists that all workings of the mind depend upon two factors, strength and speed. He, therefore, pairs the temperaments into fast and slow, and strong and weak, as follows:

	Strong.	*Weak.*
Quick.	Choleric.	Sanguine.
Slow.	Melancholic.	Phlegmatic.

Unfortunately here, too, the essential meaning of temperament is lost sight of.

Lotze (Mikrokosmus, Vol. 2) regards no single designation as aptly pertaining to ordinary individuals, but believes, each and every one of the quarternion may be manifested by the same person at diverse times. To him, childhood represented the sanguine with its precocious receptivity; youth shows the sentimental (melancholic,) middle life, the choleric, and old age, the phlegmatic.

The modern idea of this term is possibly best conveyed in the words of Bouchard, He defines "temperament" as "the dynamic characteristic of the organism." In other words, it is all that which concerns the individual variations of the nutritive activities. It is, therefore, wholly internal, yet has an external manifestation, which can, it seems to me, be best described by the word "disposition." It is this latter term which was formerly ment by temperament. Yet the two are by no means identical. Individual "disposition" is merely the outer visible mark, through the study of which, oftimes approximate conclusions as to the nature of the fundamental internal process of nutrition may be gained.

Disposition is, then, the visible measure of temperament of innate nutritive forces. That every individual seems to possess a certain "natural disposition" is an observation readily made by the study of the daily life, in thought and action, of those about us.

Sometimes, it is true, this natural trend seems to undergo marked changes, even to become totally lost, but close scrutiny usually reveals an innate tendency apparent to the demise of the individual in question. The changes merely mark the momentary effect of extrinsic causes acting upon the nutritional forces, the perception of which usually fades from the individual consciousness.

While I am speaking of limits of meaning to certain terms, I desire to define two others, often used in this connection sometimes erroneously, for temperament, with which they may have much to do, but from which they differ markedly.

"Constitution" is a term which conveys to my mind the purely material factor of the organism. It deals wholly with the structure and framework of the body. It represents an individual anatomica-physical condition, whereas temperament is the physiological-chemical equivalent of the same organism. The constitution is the material expression of resistance offered by the body tissues to the encroachments of disease, or any tendency toward disease.

Any inclination or predisposition to develop an aberration of nutritive functions constitutes a "Diathesis." When this tendency shows itself fully developed we recognize conditions of abnormal nutritional activity, and then we justly speak of disease. No diathesis can be properly termed "disease" during the devolopmental stages.

By a proper comprehension of these three phases of the animal economy, "constitution," "temperament," and "diathesis," it seems to me that the various phenomena of life lose much of the mystery surrounding them.

From a practical standpoint, then, it seems well to me, that we recognize certain forms of innate temperament and diathesis.

Close observation and much study makes it probable that living tissues like those of inanimate creation, can be regarded chemically as either alkaline, acid or neutral in their properties (Gibier).

We may substitute, therefore, in place of the classic group of temperaments, which, as has been mentioned, related only to visible individual disposition, a classification of chemical character, grouping only into three, though a variety of degree between them may be presented. These three are coincident with natural reactions, and are:

1. The alkaline temperament.
2. The acid temperament (Gibier).
3. The neutral temperament.

Furthermore it will be borne in mind that all of them refer only to nutritional activity, in the sense in which I have already spoken.

The Alkaline Temperament.—Individuals of this kind show a decided alkalinity, and such fluids as are highly acid, like the gastric fluid and the uterine secretion, are much weaker in their reaction, while those normally alkaline, for example, the blood, are frequently very much increased in this direction. Careful scrutiny will reveal that such persons are almost exempt from certain diseases, and on the other hand, are peculiarly subject to certain other affections.

The disease to which the alkaline temperaments are most prone, are the tuberculous, notably to the pulmonary variety, and to scrofulosis, which is undoubtedly also tuberculous in character. A vegetable diet and total abstinence from alcoholics tends to increase alkalinity and is distinctly harmful to those predisposed by environment and heredity (diathesis) to any form of tuberculosis.

The Acid Temperament,—Forms an almost direct antithesis to the alkaline, and,

curiously enough, the diseases to which the former are subject, occur only infrequently and in mild form among the latter. The converse is also true. It is thoroughly well-established that individuals of this temperament suffer from hyperacidity in all of its forms, and from the maladies associated with this dyscrasia. All the normally acid secretions show highly acid reactions, and the normal alkalinity of the blood and the intestinal juices is markedly reduced.

To all arthritic affections, to gout and to rheumatism, to the herpetic skin eruptions, to vascular degeneration, with aneurism-formation and apoplexy, and to forms of nerve degeneration associated with, or dependent upon, arterial lesions (paresis, scleroses, tabes, migraine, hysteria), they are particularly liable. Cancer and epithelioma are frequent.

Possibly the highly acid media of the body offer poor nutrition to a variety of pathogenic microbes, and so leads to the fact that persons of the acid temperament are rarely affected by tuberculosis,

The Neutral Temperament, may well be regarded as the normal state, happily inherited from sound ancestry or fostered by wholesome ways of living from birth onward. Persons of this fortunate class while they may become temporarily acid or alkaline by reason of alimentation and habits of life, are readily curable from such affections as often become intractable among members of the other temperaments. But it is not alone in sickness that we note this characteristic, for morally and mentally the neutral temperament is readily controlled, while the markedly acid and alkaline are difficult to control. Moral and mental atavisms are oftimes observed among the extremes. Objects of degeneracy are rare among the mean.

It may be well to mention that but two great tendencies prevail, namely:

1. The *scrofulous*, or predisposed to tubercle development, closely allied to the alkaline temperament, and

2. The *arthritic*, under which is also included the neoplastic, and which consorts especially with the acid temperament.

The "association of diseases." It is certainly more than passing strange, more than mere coincidence that we so frequently find certain maladies side by side. Seemingly independent, though often allied, in one and the same individual.

On the other hand, it is remarkable that certain other affections are rarely met with in the same persons, seem even antagonistic to each other.

It is not sufficient to say simply that this or that disease takes this or that course because a certain individual possesses these or those traits of character. Is it not, at least, quite as likely, and more logical, to assume that the very traits to which we refer are themselves marks of a given fundamental temperament, which favors the development of certain well-understood tendencies to disease. *Apriori*, it is just as likely, and actually it is vastly more scientific reasoning,

The type of expression would follow as an effect. It would not be a cause.

Is it not a fact of remarkable import that patients wasted to the last degree by arthritism (lack of oxidation and loss of nutrition) seldom, if ever, fall victims to any form of tuberculosis, when we could fairly say, general conditions for the development for the latter would be most favorable, were it not for some underlying antagonistic tendency of this kind are worth serious thought. Cancer, too, and tuberculous, I have never seen together; nor does the latter show itself even in the extreme cachexia of the former.

As I have already pointed out, arthritic and cancerous affections are essentially acid affections; tuberculosis develops almost exclusively on alkaline foundations.

On the other hand, look at the maladies which frequently associate themselves together. The most classic example is that of arthritis, endocarditis and chorea, of which I have elsewhere spoken. These three affections all arise upon an acid foundation, are even characteristic of the acid temperament.

Migraine—real hemicrania—I have never seen save with the essentially acid.

Many extravagant claims have been made by the believers in a vegetable diet for human beings. They claim it prevents consumption; that the eating of beef or animal food is conducive to its development. Experience with certain animals and man does not substantiate these claims, in fact, speaks clearly against them.

It has been found that about 25 per cent. of the mortality among the birds and animals in Regent Park (London) is due to tuberculosis, a percentage almost double that among human beings taking the world over. Of these animals the meat-eaters are much less affected. Among the mammals that eat only vegetable food—the monkeys, kangaroos, antelopes and deer—tuberculosis causes about 25 per cent. of all deaths. Among the purely meat-eating beasts, such as lions, wolves, leopards, etc., the loss from this disease is but 3 per cent.

Birds eating no meat show a mortality of 3 per cent., while the carnivorous birds—eagles, owls, vultures and other birds of prey—suffer only to 11 per cent. of the

number lost. These contrasts are certainly impressive, not merely coincidental, and surely have great significance.

We can see corroborative testimony in frequent morbid conditions among our domestic animals. Note the common affliction among our cattle—the horned variety especially those which are herbivorous and alkaline. It is tuberculosis. Observe how frequently the faithful dog limps painfully about with rheumatic joints, or twitches with chorea, or claws and scratches his skin, itchy with eczematous disease. He is carnivorous and acid.

Diseases of the Stomach.

Under this title in the Maryland Medical Journal for October 28th, Hoffman considers the practical diagnosis of such diseases with special reference to the early diagnosis of cancer of the stomach and its treatment. The proper treatment is intimately associated with the exact diagnosis.

To make this diagnosis we must note the statements of the patient, external examination of the stomach, macroscopical, chemical and microscopical examination of the stomach contents after a test meal, examination of the urine and feces, of the teeth, nose, pharynx, naso-pharynx and larynx. In fact, the patient must be examined as a sick man and not as a disordered stomach.

Incipient tuberculosis must not be overlooked. Patients with gastric symptoms may be suffering with aneurism of the aorta, intermediastinal tumor, a submucous duodenal carcinoma, Bright's disease, diabetes, tabes dorsalis, etc.

To outline the stomach he uses air forced in by a double-bulb syringe.

Einhorn's method of illuminating the stomach is of value if the patient has thin abdominal walls as is usually the case.

In testing stomach contents after a trial meal he uses blue litmus paper for acidity, red Congo paper for free acid and yellow tropeolin paper for free HCl.

Motor insufficiency is more important than mere dilitation.

The presence of lactic acid will justify our suspecting cancer. He uses the method of Kelling in testing.

To half a test tube of water one drop of the official solution of chloride of iron is added; to this mixture we add drop by drop of the filtered contents. If there is a distinct green color, lactic acid is present.

We should also find the Boas-Oppler bacilli.

But even after the most careful examination and a correct early diagnosis he does not insist on an operation except when the cancer is seated at the pylorus and the stenosis causes such symptoms that the life of the patient is simply miserable. In other words, do not operate for cancer of the stomach, but for stenosis.

As the proper operation he recommends gastro-enterostomy as safest for the patient.

He quotes a saying of Von Leyden current in Berlin during the past summer, "the *later* the physician makes the diagnosis of cancer of the stomach the better it is for the *patient*.

Copper Arsenite in the Treatment of Typhoid Fever.

Kolipinski, in the Maryland Medical Journal for October 21st, recommends arsenite of copper in the treatment of typhoid fever.

When in the second, third or fourth week the acute symptoms have disappeared, and the temperature continues at the same elevation and shows no indication of declining, or else at these times, from nervous shock or other accident, the fever suddenly mounts higher, or else should the temperature be subnormal in the morning and rise to 99 or 100 F. in the evening being markedly intermittent—under all these conditions will the arsenite of copper arrest the febrile oscillations completely in from one to four days and convalesence follow.

He gives from 1-1200 to 1-2400 of a grain in a tespoonful of water every half hour for two or three days allowing ample time to sleep.

He reports five cases in which he used the copper, beginning on the 10th, 26th, 13th, 34th and 27th days respectfully, with the best results.

The Mercurial Vapor Bath in the Treatment of Syphilis.

This method of treating syphilis has almost been abandoned, says Robbins in the Maryland Medical Journal for October 21st, and yet it is one of the most effective means in certain stages.

The apparatus is to blame for some of the disuse, as it is not a very easy matter to get a satisfactory bath from the ordinary appliances.

His cabinet used is 3 ft. 9 in. long, 2 ft. 9 in. wide, 3 ft. 11 in. high.

It has a door and two windows where one can see how the steam is acting and whether the calomel is being dissolved or not.

A Bunsen burner is necessary to properly dissolve the calomel.

The thermometer protrudes from the box

having only the bulb within and by no means can the steam cloud obscure the reading.

He heartily endorses what Parker, of Birmingham, says of this method, that by it the patient is exposed to the influence of three agents, heated air, steam and the vapor of mercury and as a means of treating syphilis it is *safer*, *quicker*, *more certain*, less frequently followed by relapses and more efficient in obstinate cases than any other.

The Value of Treatment in Pneumonia.

In a paper read before the Tri-State Medical Association of Georgia, Tennessee and Alabama, S. W. Purefoy discusses this subject.

He said that the observations of the paper were based on 120 cases of pneumonia which had been received into the Louisville City Hospital from October 1, 1894 to June 1, 1895. The general mortality had been 67 per cent. The highest was in December; the lowest was in April. The variations of the clinical symptoms were as would have been usually found in such number of cases. In the post-mortem room grey hepatization was always found. This condition of the lung was constant, whether a portion of one lung, or entire lung, or both lungs had been involved. The morbid anatomy of the tissue was examined by Dr. Cashin, who, from the macroscopical, microscopical, and bacteriological investigations, inferred that the grey hepatization of the lung tissue in a pneumonic process was probably a purulent infiltration, or a purulent saturation of the tissue. Those who witnessed the autopsies agreed that the grey hepatization of the lung was possibly the condition which always resulted in death, it being probably a focus from which a general pyemia or pyo-septicemia pervaded the entire body.

In the treatment of the greater number of these cases the solutions of digitalis and the salts of strychnine was used, following the teachings of the authorities. The result of this treatment was discouraging, and no appreciable advantages was derived for the patient, after they had been confronted with great disparagement.

They gave the patients received into the institution from April to June only morphia, gr. 1-4 p. r. n. for pain, assisting with calomel, grs. ii every three or four days. The ratio of death among this number was only one-sixth. This decreasing of the mortality could not be ascribed to treatment, but, contrarywise, to natural causes, the attenuation of the virus, a warm and dry atmosphere, great individual constitutional strength of the patients, etc; nor could the higher mortality of the winter season be caused by a lack of treatment, but to the soil upon which and to the season in which it was thriving. This was certainly exaggerated by the two causes that always work to the detriment of hospital statistics.

There were many who recovered in their homes without treatment, whereas there were many received into the institution who were already in a moribund condition. In compiling statistics, those that had recovered in these homes should rightly be included in the same series as those that had been received in the moribund state. Much of the charity work was done by the resident physicians of a city to such as was expedient. When it becomes impracticable the patient was sent to an institution of alms. Many of these died shortly after their reception. By deducting those cases which might be included within the objections, the death rate would hardly have been higher than 30 per cent.

In answer to the question, when we had considered the findings at the autopsies and the high mortality, what was the value of the treatment instituted, he said that if we regarded disease to be a self-limited infection, the treatment was useless; that if death was the result of a pyo-septicæmia, the treatment was hopeless.

In answer to the question, as a plea for better treatment, what is the more rational treatment, he said that the science of medicine was constructed on both the laws of induction and the laws of deduction. We applied known remedies to unknown causes and discovered thereby specific causes; we applied unknown remedies to known causes and made known specific remedies. If we applied this method of analysis to the discovery of a rational treatment for pneumonia, we could better approach the question. In the treatment of pneumonia, there were three factors for consideration—the strenth of nature, the strength of medication, and the effects of the pneumococcus. If the positive elements be stronger than the negative element, we make a cure; if the positive elements be weaker than the negative element, death results. But one may recover with the strength of nature alone, or one may die with both the strength of nature and the power of medication at his service. If this is true, what follows as to the method of treatment that should be used in order that one may recover in every instance? The solution seemed to be in the supplementing of an artificial immunity to a partial natural immunity. Pane and de Renzi investigated probably

on this hypothesis when they announced to the members of the medical prosession the possibilities of their anti-toxine serum. While its uses, as yet, had been but little tried by the profession at large, still it bids fair to be a treatment of rational and intrinsic value; and offered much hope, if used at an auspicious time, to us of becoming capable of averting every fatal catastrophe in pneumonia.

Ophthalmia Neonatorum.

The use and the abuse of nitrate of silver in the treatment of ophthalmia of the newborn is discussed in a very practical way by Friedenwald in the Maryland Medical Journal for September 30th.

The results from the proper use of this agent are so good that he considers it criminal to experiment with new methods and remedies.

The prophylactic treatment consists simply in the instillation of one drop of a 2 per cent. solution directly upon the cornea as soon after birth as possible.

The curative treatment is not so simple, as in certain stages we must withhold the agent. During the first stage, when the lids are greatly swollen, the conjunctiva congested and glistening and exuding a thin straw colored serum, cold applications is the treatment. But as soon as the exudate becomes purulent, the silver solution should be begun.

Should an ulcer form the solid stick may prevent extension and preserve sight.

Heart Disease in Obstetrical Cases.

We are not consulted as much as we should be by young ladies contemplating a matrimonial alliance, but if we are asked by a woman with valvular disease if she can marry, we may reply yes according to Wright in the American Medical Quarterly for September.

Mitral stenosis he considers the most dangerous form.

Pregnancy is apt to disturb compensation and may interfere with the kidneys and liver.

He is a firm believer in the value of epsom salts when properly administered.

He says that this one remedy will accomplish more good in cardiac disease of pregnancy with serious symptoms. especially if there be toxemia, than all other remedies (including rigid diet) put together.

He reports seven cases of serious heart lesions, with one death, which was due to poor nursing and bad surroundings.

In brief, his views are as follows:

A woman having a heart lesion which is compensated should not be prevented from marrying.

Abortion should not be induced on a woman with heart disease uuless very serious symptoms are present.

Premature labor should seldom or never be induced on account of heart disease.

Mitral stenosis is the most serious heart lesion during pregnancy and labor—aortic stenosis comes next—then probably aortic incompetency. Mitral insufficiency is the least serious lesion.

Treatment during pregnancy. Administer the following according to indications: Strychnine, digitalis (or strophanthus), cathartics, nitrite of amyl, nitro-glycerine, and regulate the diet.

Treatment during labor. Keep up the action of digitalis (or strophanthus), especially during first stage. Give strychnine and stimulants if required, and chloroform. As soon as the first stage is completed deliver with the forceps.

Watch the patient carefully during the third stage (the most dangerous time) and for some days after.

The Arid Region of the United States for Pulmonary Tuberculosis.

Cobb, of the U. S. Marine Hospital Service, in the Medical News for October 21st, gives some interesting information in regard to the southwestern desert as a place for consumptives. He is firmly convinced that any part of Arizona, Colorado, New Mexico, Mexico, or Western Texas, above 2,000 feet elevation is as good as another part for acute uncomplicated cases, other things being equal, such as food, etc.

Patients should not be sent to the small towns or ranches as it is almost impossible to get a decent meal in such places. All patients sent should be sensibly instructed by their physician.

They should expect many hardships, but their business is to get well, not to enjoy themselves. He mentions a case sent out witnout proper instructions; he first went to Albuquerque, but as he did not get well in a week left for El Paso and from there to Tucson, where the dust was too great, so he came to Phœnix and was leaving there because it was too damp from irrigation, in disgust he bought a ticket to Chicago.

While there is lots of sunshine the weather is cold at night and there is a marked difference in the midday and midnight temperature. Flannels should be worn all the time. Patients should carry their own pillows and blankets.

The places most frequented range from 2,000 to 8,000 feet, the greater the altitude

the greater the rainfull, the lower the altitude the greater the barrenness and prevalence of dust storms. Patients are likely to be nervous during the first few months of their residence. He mentions as suitable stopping places Las Vegas, N. M., 6,000 feet; Las Vegas Hot Springs, N. M., 6,000 feet; Santa Fe, N. M., 7,000 feet; Albuquerque, N. M., 3,000 feet; Las Cruces, N. M., 3,000 feet; El Paso, Texas, 3,000 feet; Deming, N. M., 4,000 feet; Hudson Hot Springs, N. M., (near Silver City,) 5,000 feet; Tucson, Arizona, 2,000 feet; Phœnix, Ariz., 2,000 feet; Prescott, Ariz., 5,000 feet; Flagstaff, Ariz., 6,000 feet; Alamogordo, N. M., 4,400 feet; Clondcroft, N. M., 6,000 feet, Eddy, N. M., 4,000 feet; Roswell, N. M., 4,000 feet.

The Subclavian Arterial and Venous Murmur.

A new method for eliciting this murmur is described by Abrams in the Medical Standard for October.

The stethoscope is placed in the infraclavicular fossa and if the murmur is not heard the arm of the patient corresponding to the side auscultated is slowly raised when the murmur soon becomes audible. It may be necessary to elevate the arm to the level of the shoulder or even until it assumes the vertical position. This maneuver evokes the subclavian phenomenon by narrowing the lumen of the artery.

From an examination of 300 cases he concludes that the subclavian arterial murmur is an independent (antochthon) and rarely a transmitted murmur.

Its point of maximum intensity is the fossa of Mohrenheim, with feeble tendency to propagation.

It is heard most often on the left side, less frequently on both sides and least frequently on the right side. In order of frequency it is heard at the height of inspiration, at the end of expiration and after momentary suspension of respiration.

It is usually a succession of murmurs uniform in character and intensified by certain maneuvers, notably deep inspiration, forced expiration, suspension of respiration and voluntary stretching of the neck.

One of its chief characteristics is its momentary duration, disappearing usually after a few deep inspirations.

Its dependence on the phases of respiration distinguishes it from all transmitted murmurs.

It may be present at one and absent at a subsequent examination, and neither its character nor duration is ever uniform from one examination to another.

The position of the patient may influence its genesis, but this is never sufficiently uniform to be of practical value.

A phthisical lung is not specially propitious to its occurrence, as it is found nearly as often in healthy as in phthisical persons.

It was present in thirty-six per cent. of all healthy persons examined, advantage being taken in this enumeration of re-examinations and those propitious factors which determine its occurrence, viz.: respiration and decubitus.

The venous subclavian murmur was only heard in six individuals with a preponderance of its occurrence on the right side.

The arterial subclavian murmur could be artificially induced on the left side in nearly 80 per cent. of all individuals examined, and on the right side in about 65 per cent. of the cases by a simple maneuver, viz., raising the arm gradually until it assumes a vertical position, while auscultating the Mohr enheim fossa during the time that the arm is brought to the latter position, the murmur suddenly appearing at some time during the execution of the movement.

By the foregoing maneuver the subclavian venous murmur could be induced on the right side in 43 per cent. of all persons examined.

Dupuytren's Contraction of the Palmar Fascia.

Nichols, in the Medical News for October 14th, gives the result of a microscopical examination in two cases of Dupuytren's contraction.

In both cases the band causing the contraction was found to be simply a hypertrophy of the normal palmar fascia.

A few Pacinian bodies were found alongside the bands in each case.

The contractions had lasted 16 and 8 years respectively. As compared with a case previously reported by the author, these were less vascular, the vessels were unaccompanied by any abundance of cells in their adventitia, and the connective tissue cells among the fibrous elements were less numerous.

The observations go toward indicating that in the early or developing period of Dupuytren's contraction the cellular and vascular elements occur in great abundance, while at a later stage, when the lesion is fully developed and stationary the cells and vessels diminish, leaving the abnormal tissue a dense fibrous mass, and that the hypertrophied fibrous bands are developed by the activities of the abundant connective tissue cells, which are proliferated in especial

profusion along the course of the small blood vessels.

The lesion is essentially a hypertrophy, the new tissue being similar to the pre-existing normal fascia. Any etiological explanation of Dupuytren's contraction would have to take into account the active proliferation and the fibroplastic action of the connective tissue cells and their relation to the vascular elements. The presence of Pacinian bodies in all the three cases microscopically examined is perhaps worthy of mention

Treatment of Syphilis.

In a continued article in the International Medical Magazine for October by Thomas, of Pittsburg, he says that the treatment of the chancre is *cleanliness*, and for the secondary stage, mercury.

Constitutional treatment should be withheld until the diagnosis is certain. He gives the protoiodide in one-ha'f grain tablets so that the patient may take from a fraction of one to two or more at a dose; if griping is produced ¼ to ½ gr. of opium may be added; however, in such cases he prefers the change to the bichloride or biniodide, or the tannate.

If there is considerable malaise and anemia he gives the following:

℞. Hydrarg. protiodid, gr. v-x
Strych. sulph., gr. ss
Ferri. sulph., gr. xx
Pepsin pulv., gr. xl
M. Ft. in capsul. No. XX.
S. One capsule after each meal.

He gives at least two courses of inunctions, the entire body being gone over, using one-half dram of ointment at bed-time to different areas of the body successively.

Puerperal Insanity.

The two great elements which enter into the causation of insanity are heredity and sepsis, according to Brush in the American Medical Quarterly for September. More than 40 per cent. have insane relatives.

He mentions shock, prolonged and exhausting labor and especially anxiety.

From the clinical side of cases of puerperal mania the author draws the conclusion that they are septic in their origin.

Chapin is quoted as saying that since the introduction of stricter antiseptic measures in obstetrical practice, the number of cases of puerperal insanity has decidedly decreased. He reports a case in which the symptoms were not so much those of acute ordinary mania as those of simple delirium, and in numerous cases this has been true, where other toxic influence have been suspected or demonstrated.

The Surgical Treatment of Gall Stones.

Ferguson, in the Medical Record for October 7th, says that cholelithiasis is purely a surgical disease and should be taken out of the category of general medicine.

Only two other diseases are of equal surgical importance from the standpoint of frequency of occurrence and of fatal ending when not submitted to the surgeon's knife, viz., appendicitis and ectopic pregnancy.

The so-called recovery under medical treatment is only apparent and sooner or later the condition will return, and with each attack there is danger of rupture of the gall bladder and fatal peritonitis.

That biliary calculi in rare cases do ulcerate their way into the stomach is true, but this does not destroy the fact that much more frequently they take the course indicated above, nor can it by any means justify the physician in withholding the only remedy that promises a cure, viz., a surgical operation.

The particular operation he considers the best is cholecystenterostomy or opening the gall bladder and uniting it by a Murphy's button to the intestine direct. Of course, in some cases this operation is not practicable, when the gall bladder may be removed or stitched to abdominal wound, the latter being the simplest of all the operations for impacted gall stones.

While it is a surgical disease he does not consider an immediate operation indicated in every case, but that when an acute attack lasts longer than ten days an operation is proper.

He reports five cases, in two the gall bladder was attached to the transverse colon with the best results; in two the operation was delayed too long, and in one the bladder was so atrophied that it was sutured to the peritoneum after stripping it from the abdominal wall and tucking it down and suturing it around the atrophied fundus.

In all chronic cases, namely, cases in which there has been a recurrence from time to time of hepatic colic, whether there is or is not a coincident jaundice, operation is indicated. Then there is another class of cases, chronic in nature, that drag their slow length along for months, sometimes for years, in which the distinctive symptoms of gall stones have been merged into constipation, chronic indigestion, anæmia, soreness, and sometimes excessive tenderness in the epigastric region. Jaundice, if present at all, is very slight. Such cases are frequently treated for malaria, "bilious fever," or "liver disease." The gall bladder in such cases is liable to undergo cancerous degeneration and should be operated upon without delay.

The Early Diagnosis of Cancer of the Stomach.

Hemmeter, in the Medical Record for October 21st, after discussing several points of value in the early diagnosis of cancer of the stomach, concludes that there are only two methods of making a possible early diagnosis. One is to curette the stomach, examine the cellular detritus and fragments of neoplasm, at the same time seeking for evidence of mitosis; the other is to make an exploratory laparotomy. He warmly recommends this diagnostic incision if there is rapid emaciation, absence of H.Cl., reduction of proteid digestion under 30 per cent,, presence of lactic acid by Uffelman's test or numerous long baseball bat shaped Oppler-Boas bacilli. If all of these signs and symptoms are present in any case, even of short standing, and no improvement follows three weeks course of appropriate treatment, we should urge an exploratory laparotomy.

The progress which the physiology, chemistry, pathology, and bacteriology of digestion have made in the last fifteen years, and are still making, strengthens the belief that we will be able to make an early diagnosis of gastric cancer in the near future.

Retrodisplacements of the Uterus.

No routine treatment is suitable for every form of displacement says Montgomery in the International Medical Magazine for October. If the displacement is recent the pessary or tampon are appropriate if due to subinvolution. Always remembering that the uterus must first be replaced before the pessary is introduced.

To put the uterus in its proper position, one of two methods may be employed.

With the patient in the dorsal position, introduce two fingers into the vagina, with the middle finger push up the fundus while the index finger is hooked over in front of the cervix pushing it backward; if it catches against the sacrum the cervix may be pulled down by a double tenaculum, while the fundus is pushed up from behind.

The second method is to place the patient in the genupectoral position, introduce a speculum and retract the perineum and with a tenaculum draw the cervix downward and backward.

To attempt the correction with uterine sounds is mentioned only to be condemned. In adhesions, pelvic massage and manipulation of the uterus may do much if they are not too firm or of too long standing.

The forcible replacement of Schultze should be used with caution.

The various operative procedures are reviewed, and the author concludes that it is necessary to adapt our means of treatment to the particular conditions which may be before us.

Uremia.

In discussing the various subjective symptoms often complained of by patients as pain, headache, muscular soreness, dyspnea, palpitation, etc., Dannaker, in the Kansas City Medical Record for October, says they are liable to be improperly interpreted. These symptoms occurring in maternity cases we say all will clear up when the child is born without attempting to look any deeper into the cause.

He considers these various symptoms common to many diseases and conditions as caused by an accumulation of urea in the system and that our treatment should be eliminative.

He reports five cases in which there was deficient elimination of urea as shown by urinalysis. As treatment he stimulates the glandular system with mercury reinforced by salines and gives strychnine and iron. A proper diet is also very important in such cases, all red meat, cheese, beans and fresh bread being forbidden.

Gangrene of the Lungs

A report of two cases of this disease following pleuro-pneumonia is made by Levings in the New York Medical Journal for October 14th, both being treated surgically with recovery.

In the first case, female, age 55, portions of the ninth and tenth ribs were resected and cavity drained.

The second was male, age 50, opened by resection of portion of ninth rib, the cavity opened and gently washed out and drainage tubes inserted. On the seventh day there was severe hemorrhage, controlled by firm packing with iodoform gauze. This patient made a perfect recovery.

The dangers and likely complications in such cases from surgical interference are:

1. Suffocation. In any patient having a cavity more or less filled with fluid and in direct communication with a bronchus, there is a real danger of suffocation during the administration of an anæsthetic.

2. Some of the septic material may be inspired, setting up a fœtid bronchitis.

3. The danger of shock and of subsequent exhaustion is very considerable.

4. Hemorrhage, both intercostal and pulmonary, may occur.

5. Septic infection of healthy lung tissue as the result of the punctures may take place.

6. Operative interference may be the

cause of secondary rapid sloughing, and gangrene of the lung may follow interference when adhesions are absent or insufficient.

7. Pneumothorax and pyopneumothorax.

The following points are made in conclusion:

All cases of pulmonary gangrene which are progressive and not absolutely diffuse should be operated upon.

The gangrenous area should be localized by physical examination, aided by the use of the aspiring needle, and, if necessary, by multiple resection of ribs.

In the absence of pleuritic adhesions, the pleural cavity should be shut off either by a gauze packing or by a row of sutures.

After thorough opening and free drainage of the gangrenous cavity it should be daily cleansed by gentle irrigation.

The cavity should be tightly packed with iodoform gauze.

The Diagnosis of Tuberculosis.

Dewitt, in the Journal of Tuberculosis for October, calls attention to the following points in the diagnosis, prolongation of the expiratory act, altered vocal fremitus and inability to inspire deeply without inducing cough. Another important point is the daily rise of temperature usually in the afternoon.

He reports a case illustrating the value of these points and concludes that we must keep in mind the importance of a rigid examination, not one but several, if necessary, before pronouncing judgment. That no one symptom should be taken as a guide, but all should be scrutinized carefully and given their proper places and bearing. Nothing short of this will insure success. It does seem that especial stress should be placed on diurnal post meridian temperature, prolonged expiration, vocal resonance and cough upon deep inspiration.

Chronic Spinal Neuritis.

Brush, in the New York Medical Journal for October 14th, discusses the course and prognosis of chronic spinal neuritis.

It may be secondary to the acute form or chronic from the beginning.

In 18 of his cases, 3 followed the acute form, 8 were due to chronic alcoholism, 2 to injury, and one each to tuberculosis, rheumatism, parturition, arsenic and lead.

Clinically they may be divided into those in which the arm or leg is affected and those in which a large number of nerves in different parts of the body are involved.

All of the arm cases began with pain, followed by loss of power, atrophy of the muscles.

The leg cases showed involvement of the sciatic principally with more pain than in the arm type. The prognosis, however, he considers better than in the arm cases.

Multiple neuritis in its chronic form appears first as a local condition irregularly involving the nerves of one limb and then of another, the symptoms are the same as the other types, but the pain is not so severe. The prognosis is bad.

Illustrative cases are given under each type.

Two cases developed locomotor ataxia as a sequel of the neuritis, the inflammatory process passing upward by the posterior nerve roots to the posterior columns of the cord.

Fracture of the Patella.

In the treatment of this condition, Ball of Dublin, in the Interstate Medical Journal for October, advocates the use of a tyre of steel wire rope entirely encircling the two fragments. The wire is used preferably in two parts and twisted at each side rather than to use a single length with only twisting at one side as by the two piece method the fragments may be more accurately adjusted without undue strain.

He believes in the open method for the application of this wire. He raises a horse-shoe flap from the front of the joint, thoroughly exposing the site of the operation.

He reports a case in a girl, age 18, so treated and five months afterwards the leg was quite strong, able to walk well and do her work without discomfort.

He suggests a similar method in the treatment olecranon fractures, except that the ulna must be perforated well below the fracture for the passage of the lower rope.

Blood Letting.

The backward swing of the pendulum is somewhat anticipated in regard to bleeding by Briscoe in the Clinical Journal for the September issue.

He states that the condition of the system indicating blood-letting is expressed by the word suffocation.

Local conditions may require bleeding as alveolar abscess, ordinary inflammation, chronic inflammation, thecal abscess or any tissue requiring the relief of tension.

He states that every surgeon should carry some kind of venesector in his pocket.

The states of the general system denoting venesection are included in the following conditions:

When you find the venous system gorged

in primary affections of the lungs or in the secondary congestions, as in heart disease, or from paralytic conditions, as in apoplexy, you cannot be wrong in bleeding; you relieve the venous system as well as the heart, and allow the circulatory apparatus to right itself. The objection sometimes made that the patient is too weak, as indicated by the pulse, is futile, since, owing to the small amount of blood which reaches the left ventricle to be propelled onwards, the pulse is naturally small.

Bassini's Operation as Performed by Himself.

Andrews, in the Medical Record for October 28th, describes the operation for radical cure of hernia as done by Bassini of Padua. The genuine Bassini is perhaps not done every time it is so reported in this country or abroad, but to see Bassini himself is to see the real. His hour for operaiing is 6 a.m., and to see the minor work one must be present at 5 a.m. It seems bad enough to operate on a man without waking him up to do it.

He does the operation in from 20 to 25 minutes and the good results are secured by smooth and rapid work.

He considers the operation essentially a plastic one and, of course, primary union is a primary necessity.

The insertion of the deep suture line is as follows: The divided external oblique aponeurosis is held apart by retractors, so that the inner aspect of Poupart's ligament is accessible and visible. The cord is held outside the canal by a loop of silk clamped with an artery forceps to the gauze covering the abdomen. Good-sized silk previously sterilized by boiling in glycerin is taken from the antiseptic and threaded by the operator's own hands upon a semicircular self-threading needle. This is done at the moment of using. A needle holder is used for the two deep suture lines, but for the skin suture the needle is held in the fingers.

The deep stitches are placed beginning very close to the pubic bone. The first one or two may, in some cases, include part of the rectus muscle and sheath. Each stitch enters the transversalis and internal oblique 1.5 cm. from their lower margin,and makes exit at that margin. The needle then penetrates the shelving edge of Poupart's ligament from within outward. From four to six such stitches are placed behind the cord, the last one narrowing the internal ring until it fits tightly around the cord and forceps blade. The order of tying these stitches is the opposite of their insertion. The upper one, that nearest the cord, is first adjusted and the others follow in succession downward. The distance between these stitches is considerable—1.5 or 2 cm. Their effect is not only to restore the length and obliquity of the canal, but to invert the upper or muscular segment like a Lembert suture, and to draw it somewhat behind the ligament and not merely against it. In other words, we have a sort of overlapping or imbrication here, giving broad surfaces of union.

After dressing the whole is encased in wet starch and lime bandages from the middle of the thighs to the middle of the abdomen. This forms a firm support only a little less rigid than plaster-of-paris. Dressings are changed only once, on the 8th day, when the patient is allowed to be up and about.

The X Ray in Laryngology.

The X-rays have been useful for the laryngologist, says Warren in the Medical Age for October 25th, in the detection or rather accurate localization of foreign bodies. Also for determining ossification in the cartilages of the larynx and trachea, in the diagnosis of intrathoracic growths and in the early diagnosis of tubercular processes in the lungs. He reports three cases of throat and lung troubles in which the rays were used to advantage; one of foreign body in a child, one of abscess of the lung, and the other some obscure condition of the chest which was not entirely cleared up by the use of the rays.

The detection of foreign bodies in the air passages is perhaps the most satisfactory work of the rays.

These accidents occur chiefly in children where the walls are thin and the body framework largely cartilage and in such cases a good view may be had of the throat and lungs.

Autointoxication.

In Modern Medicine for September Rand reports a case of autointoxication which he thinks was aggravated by drug medication. The name of the drugs are not mentioned, and the aggravation was due more perhaps to the lack of proper hygienic treatment than to the heroic doses of drugs.

The treatment was rapid elimination of the poison of the drugs and of the poisons produced in the alimentary canal, fomentations, electric baths, and proper diet. In a month he was discharged cured.

The case is a beautiful illustration of the recuperative power of the human body if it is only encouraged to go about its work.

Preparation of the Abdomen for Operation.

The method used at Johns Hopkins Hospital is described by Harris in the American Journal of Obstetrics for October, in which he tabulates the results of a bacteriological study of prepared abdomens.

After thorough washing with green soap and water, alcohol, ether, bichloride and sterile water, the skin is not completely sterile.

He used bits of skin taken from the abdominal wall after partial and complete preparation, colonies were found in all.

Medium sized silk sutures were passed down into the true skin and then tested by cultures showing germs in both cases though very much less after complete preparation.

Silk was also used by the "bowstring" method, that is it was drawn five times across a pinched-up fold of prepared skin and then tested as before. There were lessened growths from the completely cleansed skin, though colonies developed in 60 per cent. of cases after the most thorough preparation.

He concludes that it is impossible to sterilize the skin.

Efforts at sterilizing even the superficial parts of the skin by methods used in the operating room are unsuccessful in most cases (and probably so in all cases).

The degree of sterilization of the cuticular layer of the abdominal skin, achieved by preparation for abdominal section, varies directly with the amount of cleansing done.

Embryotomy and Cesarean Sections on the Same Patient.

McCoy, in the American Journal of Obstetrics for October, reports his experience with three full term labors in one patient with a contracted pelvis.

The external measurements were as follows: Anterior superior spines 7½ inches; iliac crests 8¾; sacropubic 5 inches; pubic arch at articulation 2¾ inches wide.

After being in labor seventy-two hours to no purpose embryotomy was performed.

About one year later patient was again at full term, parents being anxious for a living child, a cesarean section was done and a male child weighing 8½ pounds was delivered.

Patient's temperature did not exceed 99 deg. during convalesence. However, fistula developed at the lower angle of the wound communicating with the uterine cavity and from which the menstrual flow came in part at each period.

Three years later the patient was again at full term and the section was again performed and a living child weighing 7¾ pounds was delivered.

Owing to adhesions along the sides of the uterus and to the abdominal wall this second section was practically extraperitoneal.

Both tubes and ovaries were removed at the last operation.

The second child died of diptheria, the the mother and the first child are alive and in perfect health.

Pelvic Suppurations.

In discussing the treatment of these conditions, Wetherell in the Colorado Medical Journal for October lays down the following rule. Large accumulations of pus in the pelvis may be more safely attacked from below, and small sacculated ones from above, the pubic symphysis. But he also states that like many other rules it is subject to exceptions.

He considers the drainage much better when the operation is done through the vagina and as this is the prime object of all treatment, unless the abscess can be removed in toto, this should be selected in all suitable cases.

If necessary the abdominal operation may be done later.

He reports several cases operated on by both methods and wisely says that the treatment of these conditions must be governed by the great principles underlying the surgical treatment of pathological processes elsewhere.

Pus must be evacuated by the route best adapted to all the conditions of the particular case under consideration and with due regard for the special skill and dexterity of the particular operator in the performance of the operation of choice.

Ocular Manifestations in Tabes Dorsalis.

The eye may give us valuable early symptoms in degenerative changes of the nervous system.

Schmidt-Rimpler, in the Hot Springs Medical Journal for October 15th, discusses some of the eye changes in tabes.

Among the first symptoms in this disease are found paralyses of the external eye muscles, Westphal's phenomenon, Rhomberg's sign and sluggishness of the pupil.

Disease of the optic nerve is frequently found in tabes, though the process in the optic nerve has no direct sequential connection with the sclerosis in the posterior columns of the spinal cord.

Lachrymation, anesthesia of the cornea and of the tissues surrounding the eyes are also among the ocular manifestations.

The Surgical Treatment of Appendicitis.

There is but one treatment for appendicitis, says Price in the American Medical Quarterly for September, early or late in its stages and that is to cut it from the head of the cecum and close the hole. The first step of prime importance is the diagnosis and if appencicitis is made out then operate. Never mind whether it is early or late, whether catarrhal or purulent, whether firm adhesions or leakage, the one safe conservative treatment is an operation.

However dire the condition there is only one thing more dangerous than the operation and that is the disease.

Where there is septic peritonitis, cavity full of filth and pus drain by the open method not by wicks, open in the median line always in such cases.

The physician is guilty who waits for strong evidence, as he is simply inviting the condition which later he will call hopeless and inoperable. A case is never absolutely hopeless until the patient is dead.

The 2 per cent. mortality on well people if operated on is only a bugaboo, fictitious and unfounded.

Stone in the Kidney.

Cordier, in the Interstate Medical Journal for October, reports three cases of stone in the kidney operated on with good results in two cases.

The X-ray he thinks valuable in diagnosis if the findings are positive, but if negative we should not by that alone conclude that there is no stone.

The largest stone he ever removed from the kidney weighed three ounces.

Pus and blood in the urine following attacks of pain with an enlargement in the region of the kidney make the diagnosis almost sure.

Kelly's ureteral cathêter with wax covered end to receive an impression by contact with the stone he does not think much of.

Immunity Instead of Heredity in Tuberculosis.

An old notion or theory handed down to us by our fathers is hard to give up and it is only after such theories are doubly proven false, do we give in and assent to a new proposition.

Flick, in the Journal of Tuberculosis for October, declares that the hereditary theory of consumption is a myth.

In fact, instead of the son of a tuberculous father being sure to have the disease, he may have in his make-up a more than ordinary amount of resistance to the germs. Instead of inheriting the disease we may possibly inherit immunity from it.

The development of the contagion theory has done much to prepare our minds for the reception of immunity ideas in regard to tuberculosis. So then instead of sitting down moping because our fathers had consumption let us stir about and assist a possible immunity conferred on us by that very fact.

Yellow Fever in the United States.

The epidemics of yellow fever show that the disease is getting milder.

This is due, said Fonde, in the Medical News for November 4th, in great part to a more thorough understanding of the disease and rationale in treatment.

This lessened virulence is also due to the enlightenment of the physicians and the public as to the conditions which favor the propagation of the germs in increased concentration.

The author is not in favor of the abandonment of quarantine and obstruction to traffic just yet.

Thorough disinfection, isolation and quarantine measures not only check an epidemic, but actually stamp it out, as shown at the National Soldiers' Home in Virginia this year.

The fact that the disease is much milder than in former years makes it very difficult to convince a smartaleck that a given case is really yellow fever.

As with smallpox, its very mildness militates against the proper regulations and treatment.

Neurility.

The close analogy existing between the manifestations of nervous force and electrical energy is considered by Hopkins, in the New Orleans Medical and Surgical Jouanal for November.

After a number of striking comparisons we are almost compelled to admit that neurility is a vibratory motion. This is true as to the manner of its generation and conduction and its method of final disposal.

The generation is altogether in the cell, the fibres being mere conductors.

The five senses are considered one by one and the vibratory theory is supported by the facts in each case in connection with certain chemic action.

In touch and the sensation of tickling, we have a vibratory motion directly communicated to the tactile corpuscles, pacinian bádies or other end bulbs.

The sense of heat and pain are also examples.

Comparative anatomy also serves to strengthen the comparison, as the nerve force of the *gymnotus electricus* is electrical in all of its effects.

In the effect of the different currents upon the cells of the cerebral cortex, or the appreciation of sensations by consciousness, we have reached the great barrier that bars investigation, the relations of the material with the immaterial—a consideration that may well be left for solution to the race of men of larger minds and keener philosophy, who will be the result of mental development.

Gruels in the Feeding of Infants.

The difference between the casein of cow's milk and that of the mother is the difficulty in the way of artificial feeding of infants.

According to Chapin, in the Dietetic and Hygienic Gazette, reprinted from the Medical Record, the addition of gruels will attenuate and so modify the casein of the cow's milk that it may be digested without difficulty in the infant's stomach.

A number of experiments are reported confimatory of this opinion, while Jacobi and Heubner are quoted in its support.

The objection to giving starch to the newborn may be overcome by dextrinizing the gruels by the addition of diastase.

A simple decoction of diastase may be made as follows: A tablespoonful of malted barley grains, crushed, is put in a cup and enough cold water added to cover it, usually two tablespoonfuls, as the malt quickly absorbs some of the water. This is prepared in the evening and placed in the refrigerator over night. In the morning the water, looking like thin tea, is removed by a spoon or strained off, and is ready for use. About a tablespoonful of this solution can be thus procured and is very active in diastase. It is sufficient to dextrinize a pint of gruel in ten or fifteen minutes. The gruel is made as follows: A tablespoonful of wheat flour or barley flour is beaten up into a thin paste with a little cold water and then stirred in a pint of water, which is boiled for fifteen minutes. When cool enough to be tasted, a tablespoonful of the above solution or a teaspoonful of malt extract or preparation of diastase is added and the mixture stirred as further cooling takes place. The great bulk, if not all of the starch, will be thus dextrinized in about fifteen minutes. The previous boiling is for the purpose of gelatinizing the starch so that the diastase can act to advantage. The gruel is now ready to be used as a diluent of cow's milk, and can be assimilated by the youngest and weakest infant.

Criminal Morphimania.

The criminal morphine eater is said to be the most cunning of all the violators of the law, and Crothers, in the Quarterly Journal of Inebriety for October, enters into some of the reasons why this is the case.

The criminal under his favorite drug becomes a changed person, he is plausible, frank, perfectly honest and ready to explain away any accusation.

He mentions several cases from his observations in which the morphinist appears genial, self-reliant, open, honest and very frank.

They act as if they believe every word they said, which they perhaps do. But when the drug is withdrawn the true character shows up. Morphine may be said to cultivate the crime instinct. At all events, it prepares the way to certain criminal acts, which often have some previous predisposition. The perversion and damage to the higher centers which govern the ethical relations of life are always associated with morphinists. The criminal side of these cases is the physical wreckage and relations of the higher operations of the brain. The criminal who is a morphine taker is such a wreck. No exhibition of mental power and acuteness in such cases is evidence of clear sanity.

He considers this condition due in part to what may be called "palsy of the higher psychical centers."

Nasal Stenosis.

Booth, in the New York Medical Journal for October 14th, recommends Asch's operation in stenosis due to deflection of the cartilaginous septum only. The instruments used are a pair of straight and a pair of angular-cutting scissors, a compressing forceps similar to Adams', a blunt separator and some tubular splint made of hard rubber.

Under full illumination the separator is introduced into the stenosed nostril and any adhesions which may exist are broken down. The scissors are now introduced parallel to the floor of the nose, the sharp blade entering the nostril on the concave side of the septum and the blunt blade entering that on the convex side; the blade should be atright angles to the septum, and over the most dependent part of the deflection. After being sure that the blades are in the right position, the handles are firmly closed and the sharp blade passes through into the opposite nostril with a distinct snap; the scissors are now opened and withdrawn, and are immediately reintroduced in the same manner as before. This time

the blades are made to cross in a vertical direction the first incision at its centre and as far as possible at right angles, thus making a crucial incision with four segments. The operator now introduces his finger into the stenosed nostril, pushing it through to the opposite nostril, at the same time breaking each segment at its base, thus destroying the resiliency of the septum; and this is the most important part of the operation, for in destroying the resiliency of the septum it makes it impossible for it to resume its old position. An Adam's straightening forcepts is now introduced, one blade into each nostril; the septum is grasped between its blades and by a rotary motion is more thoroughly broken up and brought into the median line; at the same time, by holding the forceps in this position, thus compressing the septum, the hæmorrhage is somewhat checked, and more can be accomplished to check the hæmorrhage by this method than by the spraying of solutions into the nose. After the hæmorrhage is somewhat under control, a firmly fitting hard-rubber perforated splint is placed into the opposite nostril. The pressure of these splints will have a tendency to check the remaining hæmorrhage; still, there may be oozing for some time after the operation. It may be necessary to hold the splints in place by means of a strip of rubber adhesive plaster.

If there is any overlapping of the segments the thickening may be removed by means of the saw.

Fresh Air for Consumption.

We are learning a great deal about tuberculosis these days and the fact that plenty of fresh air is beneficial is now recognized by all.

Squire, in discussing this subject in Treatment for October 12th, mentions the fact that 60 years ago Boddington treated his consumptive patient in a manner similar to that advocated by the authorities of to-day and that he got ridicule for his pains.

Squire does not consider fresh air the whole of the treatment for consumption, but that it is quite an aid in the proper treatment.

A very sedentary life does not produce tuberculosis, but it goes a long ways towards it, so fresh air will not cure consumption but will do much to assist a cure. Before the bacillus was found we all thought that consumption was due to exposure and hence the open air treatment was somewhat absurd, but in this day of microscopes and stains and the cellular theory of disease and immunity we accept it as a valuable aid in building up the resisting power of the body in the fight for its life.

He does not attach too much importance to forced feeding or to drugs.

To sum up, he says that the fresh-air treatment of consumption, shorn of all the non-essentials—the accessories which may be added to make it attractive or remunerative—is the application to one of an important principle which may be applied to many other diseases. It marks the application of hygienic rules to the treatment of disease, instead of only to prevention—an era in treatment soon, let us hope, to be extended to other maladies. It is perhaps natural that the value of fresh air should first be acknowledged in the treatment of pulmonary diseases, as dieting in digestive ailments. But physiology teaches us the dependence of all organs on each other, and of the whole body on the efficiency of each part. Pathology and clinical observation emphasizes this physiological principle. A diseased organ may need the administration of drugs to restore its functional efficiency; but its recovery may be greatly assisted by attending to the physiological requirements of other organs, of which fresh air is by no means the least.

Tubercular Kidney.

Primary unilateral, tubercular disease of the kidney is best treated by nephrectomy, says Polak in the Brooklyn Medical Journal for November.

The early diagnosis is important and somewhat difficult. The usual symptoms were increased frequency of micturition, occasionally tenesmus, tenderness on deep palpation, continued and progressive emaciation.

The tubercle bacilli are hard to find, but there presence may be demonstrated in the urine by inoculating guinea pigs.

The ureter should be completely removed even to excision of its vesical orifice.

For post-operative anuria, which is liable to supervene in any case, is best treated by saline infusion and rectal irrigation.

The Reflux of Air into the Ureters.

In a communication to the American Journal of Obstretrics for October, Kelly states that he has often seen air escaping in bubbles from the ureters during the act of catheterizing these tubes.

This air returning has served to show the orifice of the ureter by the bubble.

He does not consider this as proving that water may reflow into the ureters from a distended bladder, but only as showing conclusively that air many do so.

Therapeutics of Infectious Conjunctivitis.

Abstracts of a paper read to the Mississippi Valley Medical Association at Chicago, Ill., October 6th, by Dudley S. Reynolds.

Muco-Purulent Conjunctivitis.—The therapeutics are the frequent and thorough removal of the infecting matter by solutions or irrigation, with such mild un-irritating saline antiseptic fluids as will aid in the solution of the coagulated material, so sterilizing the surface of the membrane as to retard the growth of the micro-organism, and, at the same time, possessing soothing and unirritating properties. Now, since terminal nerves in the surface of the conjunctiva are irritated by ablutions which do not contain chloride of sodium, it is manifestly clear this salt should constitute one of the ingredients of any solution to be employed for irrigation. Borate of sodium in solution, containing a portion of the chloride, with enough carbolic acid to counteract by its anesthetic effect the mechanical irritation of the frequent and prolonged flowing of the stream from the irrigator over the surface of the membrane, constitutes an all-sufficient and rational plan of treatment. The long established and irrational practice of attempting to cut short infectious conjunctivitis by the application of caustics, may be accounted responsible for nearly all the diastrous sequelæ heretofore ascribed to all the varying forms of infectious conjunctivitis. Cases of muco-purulent conjunctivitis treated by caustic applications lead to entropion, symblepharon, cicatricial opacities of the cornea, more or less deep-seated, and xerosis of both cornea and conjunctiva. In fact, all those deformities, cicatrizations, atrophies. sphacelations, and staphylomes, formerly attributed to catarrhal and purulent ophthalmia, are but the natural results of the caustic treatment employed.

All the infectious or catarrhal types of conjunctivitis are retarded by alkaline lotions; all of them are intensified and greatly aggravated by stimulating astringents, and caustic applications. The treatment by irrigation is the only rational mode of cleansing; it is easy of application, the means of applying it are universally accessible, and the results are all that could be desired.

In the white staphylococcus forms of infection, the irrigation may be done with normal salt solution, or with the following:

℞.	Borate of sodium,	ʒii
	Chloride of sodium,	ʒss
	Water,	gal. i
	Cryst. carbolic acid,	gr. xv

The frequency of the irrigation should be regulated by the accumulation of matter on the surface of the conjunctiva. The upper lid being everted, and the irrigating bag being hung twelve inches above the plane of the patient's eye, the nozzle of the irrigator may be held over the bridge of the patient's nose, and the fluid allowed to run over the everted lid, and the inferior retro-tarsal surface, into a mass of absorbent cotton held on the temple. This should be repeated every hour, and when the matter accumulates enough to exude between the lids, then this interval should be shortened; say, first, to one hour, then two hours, and so on until there is no necessity for repetition of the irrigation.

In the gonorrheal type the same plan may be pursued, but a more efficient irrigation may be made by dissolving three ounces of chloride of sodium, eight grains of bichloride of mercury, and one-half drachm of carbolic acid in one gallon of water, which should be filtered before using. With this the eye may be irrigated every ten minutes from the very beginning of the attack; and, if the treatment is commenced before corneal or conjunctival abrasions occur, it is well nigh certain they will not occur afterwards. There is always some danger, in the case of infants especially, of injuring the cornea with the nurse's finger-nails; and, lest this accident should come from contact with the nozzle of the irrigator, great care should be taken never to allow the instrument to approach nearer than one inch. To perform the irrigation properly two persons are required. First, having prepared the irrigation, and placed the patient on his back, one person may evert the lid, and hold a mass of cotton wool on the temple to catch the outcoming discharges, whilst the other person manipulates the irrigator alone.

Sediment and Bacteria in Milk.

The editor of the Archives of Pediatrics, in the November issue, criticizes a decanting method of getting rid of the bacteria and sediment in milk.

The reason for the failure of this plan is that the fat globules carry bacteria with them as they rise to the surface and so the cream itself may contain, according to Dr. Freeman, three hundred times as many bacteria as the milk.

And so the editor sensibly concludes that we should rather seek to prevent the introduction of foreign matter and bacteria than to attempt to remove them after they are in the milk.

Milk that is "almost safe" should not be tolerated.

Palliative Treatment of Obstructing Cancer of the Pylorus.

In regard to the treatment of this condition, Martin, in University Medical Magazine for November advocates the switching out of the stomach and the introduction of food directly into the duodenum. While his experience is limited he considers the following conclusions justifiable on theoretical grounds:

When cancer has invaded the stomach, its course is hastened, and the pain it causes is increased by the congestion and motion inseparable from gastric digestion. Moreover, the contact of the ingesta and of the gastric juice act as direct irrigants to ulcerating surfaces, and add to exhaustion and anemia by encouraging hemorrhage.

The palliative treatment of gastric cancer has for its end the relief of pain and vomiting, and the prolongation of life.

This is best attained by excluding the stomach from the digestive process. A common cause of death in obstructive pyloric cancer is starvation incident to the failure of the gastric contents to reach the intestine. This may be remedied somewhat uncertainly by gastro-enterostomy, but even though this operation attain such an end, the stomach is still subject to the constantly recurring congestion of digestion.

Since the chemical and mechanical changes wrought on food by the stomach can be perfectly imitated without the body, there is every reason to believe, and chemical evidence to prove, that when food thus prepared is introduced into the upper bowel the functions of the stomach can be dispensed with entirely without harm to the patient.

Food thus prepared can be introduced through an artificial opening made into the duodenum. An opening into the duodenum can be made easily, bloodlessly, and rapidly, and hence with less shock than can any form of communication between the stomach and bowel.

To prevent leakage, unless there is need of great haste, this opening is best made as in Witzel's method of gastronomy—*i. e.*, by folding a tube in the wall of the bowel, Lembert sutures being used for this purpose. At the bottom of the tunnel thus formed the tube is passed through a slit into the bowel lumen.

In obstructing pyloric carcinoma of the stomach duodenostomy is always to be preferred to gastro-enterostomy. Even in cancer of the fundus beyond the reach of a radical cure duodenostomy will probaly relieve pain and hemorrhage and delay the course of the infiltration.

After duodenostomy, unirritating antiseptic and analgesic lavage of the stomach should form a part of the palliative treatment.

This operation is also indicated in intractable ulcer of the stomach.

Colloid Degeneration of the Ovary.

Under the title of the fourth hitherto undescribed disease of the ovary, Jones, in the Medical Record for November 4th, describes the infiltration of the ovary structure by colloid corpuscles, some portions being entirely changed to this material. This peculiar degeneration makes overwhelming destruction of the ova.

A number of cases are given illustrating this disease, while it is also shown that possibly several different kinds of degeneration may be going on in the ovary at the same time; colloid degeneration not only destroys normal tissue but has the power of displacing and destroying other growths and other forms of degeneration.

According to the author, ovarian degeneration due to age is very slight and the difference between the ovarian tissue of a woman aged 18 and of one aged 70 is hardly appreciable if they both be in comparative health.

She does not consider Battey's operation as the removal of normal ovaries but from a study of his cases, the disease of the organs themselves demanded their removal.

Ovaries then may be seriously diseased and yet the condition is not appreciable unless the microscope is used.

She does not believe in leaving a part of an ovary, but when part can be left, none should be taken.

Purpura Hemorrhagica.

A severe case of purpura hemorrhagica treated almost entirely by dieting with recovery is reported by Young in the Dietetic and Hygienic Gazette for November.

The patient had been given up by the physician in charge but by the use of saline injections, broiled scraped beef and distilled water she was slowly brought back to life. At times, lamb chops were substituted for the beef, then white of eggs, then sweetbreads, then back to beef. It was a long hard fight but the case finally recovered.

The writer believes strongly in broiled beef and distilled water as a diet in what he terms obstructive disorders.

He has seen casts disappear from the urine, foreign substances from the blood, sputum and feces and diseased tissues restored to health through such hygienic treatment

Operation on the Cervical Ganglia of the Sympathetic for Epilepsy. Glaucoma and Exophthalmic Goitre.

In a paper read before the Mississippi Valley Medical Association Lonphear advocates the removal of these glands in the treatment of glaucoma, exophthalmic goitre and epilepsy.

In glaucoma he says the most remarkable and satisfactory results have been obtained. In such cases it is only necessary to remove the superior ganglion, but for epilepsy and exophthalmic goitre it is necessary to remove all three ganglia first on one side and a week later on the other.

The first operation for glaucoma in which only one ganglion is removed is very simple and devoid of danger but the latter operation where three glands on both sides are taken out the procedure is more serious.

In epilepsy he thinks this operation will have its widest field of application if further experiments bear out present indications. He concludes that every ease must be an experiment unto itself. No man can say in advance that a certain patient will or will not be benefitted by operation.

The results are not dependent upon the degree of susceptibility of the patient (as is too often the case with other operations for epilepsy) but upon the marked changes which take place in the cerebral circulation.

Cases of more than four years' duration cannot be promised any hope of improvement as results have thus far been negative in all such cases experimented with.

Of cases recently developed: a few are cured; others are improved; many unchanged.

Operation for the Cure of Old, Very Large, Retained Hernia.

At the late annual meeting of the New York State Medical Association, Dr. Henry O. Marcy, of Boston, reported two cases where death was attributed to the greatly increased intra-abdominal pressure, produced by the return of the displaced organs. The subject is one of more than usual interest, since operation for the cure of hernia is now undertaken by a large number of surgeons and no reference has been made by any author to the danger which may arise from this cause.

On this account Dr. Marcy has reported these cases with careful detail, and his paper merits thoughtful study by those who operate upon large hernia. The author draws the conclusion that where any considerable portion of the intestinal contents have been for a long time displaced, it is advisable to submit the patient to quite a period of retention in bed, with a limited diet and moderate purgation. A loss of ten per cent. in weight may not be excessive, and this will mean not only by that ratio a less amount of abdominal contents present at the time of operation, but that there will be a corresponding reduction in the hernial contents to be returned. In even a greater degree will the abdominal wall be thinned and relaxed. Little by little during the prolonged period of treatment, the hernial tumor will lessen by more or less spontaneous reduction of the parts, and the circulatory equilibrium also become more nearly normal.

Dr. Marcy advises that these factors be taken into careful consideration in every case of old, very large retained hernia to be submitted to surgical treatment. He also thinks, with the exercise of such care, the conditions must indeed be very exceptional where the cure of hernia may not be safely effected.

In a consecutive list of about five hundred operations undertaken for the cure of hernia by Dr. Marcy, the case reported is the only one where the danger line seemed to be approached, where the integrity of the intestinal canal was not involved.

Typhoid Fever—Its Rational Treatment.

The ideal treatment of typhoid is still in evidence.

Taylor, in the Kansas City Medical Record for October, gives some points on the practical treatment of this disease, which, to judge by results, is as near ideal as we may attain.

He says that in this disease we have no necessity for an average temperature of more than 101 deg. F. and a pulse rate over 80.

He divides his cases into two clases: those who were in good health when the fever came and those who were afflicted with chronic disease.

The lattter class is, of course, more difficult to treat.

He uses the warm bath, instead of the cold, for 10 to 20 minutes, once or twice a day.

Food is given only three times daily.

The coal tar preparations are used if the temperature goes over 101 F. three doses during the day.

The colon is irrigated three times daily with warm sterile water.

The sum total of his treatment is: favor digestion, prevent absorption of toxins, and promote thorough elimination of the toxins unavoidably absorbed.

Tuberculosis of the Mammary Gland with Co-existing Carcinoma.

In the Medical and Surgical Bulletin for October, Warden reports a case of tuberculosis of the mammary gland in a widow, age 41, which on examination showed carcinomatous proliferation.

The tubercle bacilli were successfully stained but were found in scanty numbers.

From a careful study of this case he holds with Ribbert that the tubercular formation is primary and so influences the tissues as to afford a radius for the growth of cancer.

He also reviews the case reported by Smith, which would seem to bear out the deductions of Lubarsch, that half the cases are purely accidental.

Metastatic carcinoma in or near old or new tubercular foci. Through the cachexia of cancer new tubercular lesions may appear.

A fresh infection of tuberculosis may occur in a well-developed carcinoma—rare.

A carcinoma may rise in a progressive chronic tuberculosis, the latter acting as a predisposing factor, much like trauma.

The hypothetical entrance of both conditions at once—not confirmed.

Naturally there will be much speculation until the number of cases sufficiently increase to form definite conclusions.

Valvular Disease of the Heart.

A very interesting case of heart disease is reported by Chase in the Brooklyn Medical Journal for November, following syphilis and rheumatism fifteen years previously.

The urine examination showed nothing whatever abnormal.

The man was well built and muscular, having lost very little flesh.

Difference between heart beat and radial pulse. Double murmur over the aortic area with presystolic apex murmur, also a soft and very low pitched tricuspid regurgitant murmur.

The iodides and infusion of digitalis were used in the treatment together with rest in bed, plenty of fresh air, etc.

The most interesting and instructive points brought out by this rare and yet somewhat typical case of organic heart disease were:

The amount of cardiac disease a man can have and still suffer no actual pain.

The enormous capability of a heart to dilate and hypertrophy to gain enough strength to do its required work.

The existence in one heart of three regurgitant and two stenotic murmurs, there being at the same time no valve that is working satisfactorily.

The relation between the heart's strength and the loudness of the murmurs, showing how very true it is that loud murmurs often are much more desirable than weak ones.

That the indications for treatmeut of heart disease depend much more on the condition of the heart walls than on the existence of a murmur over one or more of the different valve areas.

Eye Complications in Typhoid Fever.

Hubbell, in the Medical News for November 11th, says that these conditions are rarely seen, but oftentimes there are internal eye changes that we do not look for and of course never see.

He mentions among the complications of typhoid, conjunctivitis both catarrhal and herpetic inflammations and ulcerations of the cornea and retinal hemorrhages.

Other diseases which have been observed are hypopyon, suppurations of the deeper structures of the eye and panophthalmitis, iritis, cyclitis, choroiditis, opacities of the vitreous humor, opacity of the crystalline lens, optic neuritis, both retrobulbar and intra-ocular, with subsequent partial or complete optic-nerve atrophy, neuroretinitis, embolism of the central retinal artery, orbital cellulitis, thrombosis of the orbital blood vessels, orbital hemorrhage, paralysis of the extra and intra-ocular muscles, together with scotomata and general impairment of vision, which are but secondary to the inflammations, atrophies, or hemorrhages present, or perhaps to an overpowering toxemia which but temporarily disturbs vision and muscular action. Hemianopsia has been recorded, but can only be due to some lesion posterior to the optic commissure and not to any disease of the eye itself.

Tumors of the Jaws.

In the Atlanta Journal-Record of Medicine for November, Hudson reports four cases of sarcomata of the jaws and one case of telangiectatic fibroma.

Of the sarcomata, one was myeloid, one periosteal, one originating in a tooth follicle, and one an epulis.

He believes heartily in early and accurate diagnosis, and in early and thorough removal if the formation is malignant.

When the diagnosis is not clear, before making a mutilating operation, it is our duty to make an exploration into the tumor and satisfy ourselves by a microscopic examination.

The Diagnosis of Typhoid.

Osler, in the New York Medical Journal for November 4th, discusses the diagnosis of typhoid.

He calls attention to the variations in the intensity of the infection from the very mild cases lasting from five to ten days, to those of acute typhoid septicemia.

Early and pronounced localization of the infection may call attention away from the real disease. Peculiarities in the symptoms such as entire absence of some of the most prominent.

The diagnosis between typhoid and malaria should not be difficult, but physicians living in malarial districts are very prone to call even a continued fever malaria.

He says that two clinical rules should guide practitioners above Mason and Dixon's line.

1. An intermittent fever which resists quinine is not of malarial origin.

2. A continued fever, in these localities is not due to malarial infection.

In conclusion he says we must learn to suspect typhoid fever, and not malaria, in every case of fever of six or seven days' duration, particularly if it resists the action of quinine. For too long we have employed the Anglo-Saxon method of procedure, and in a given case have assumed innocence of anything so serious as typhoid until in the onset of some serious symptom the guilt was only too evident! It is high time now that we adopt the Gallic usage, and regard every case of continued fever as guilty, that is as a typhoid, until the contrary be clearly demonstrated.

Acute Infantile Hemiplegia.

Priestley, in Pediatrics for November 1st, reports a case of hemiplegia lasting forty days, coming on suddenly, in an infant twenty months old.

Blindness lasted for the first two weeks; screaming fits began at the end of the first week and continued night and day for twelve days. Clonic movements of the left hand and foot lasted a month. Suppurative arthritis occurred in the third week. Jactitation and contortion of sound side lasted three or four days.

The temperature was normal throughout, except a rise caused by the joint suppuration. Complete recovery occurred eventually.

He was inclined to the opinion that whooping-cough, and excitement caused by the removal from home of an excitable child are the main factors in the etiology, and that as vision, leg and arm were affected, a meningeal hemorrhage occurred, exercising pressure over the angular, supramarginal, ascending parietal, and ascending frontal convolutions of the right ride. The continued rubbing of lips and cheek with right hand might be an example of "reflex act." occasioned by some sense disturbance in the skin and face. The screaming and contortions, from whatever cause arising, were not influenced to any marked degree by very liberal doses of chloralamide. The suppurative athritis was largely perhaps a coincidence, but probably the paralysis predisposed to it.

Feeding Children of Weak Digestion.

Attention is called to the readiness with which the general practitioner gives ready-made foods, in an editorial in the Archives of Pediatrics for November, saying that there are many children who cannot take milk. The editor considers the trouble to lie in the fact that the food is too strong, too concentrated, and if we will only give our milk more diluted the child will digest better and will in no wise suffer from lack of nourishment. He says that in many of these cases it is better to put the strength down at once to 1.5 per cent. of fat, and .75 per cent. of proteids, or even lower, the sugar strength being of less importance.

If we would only make our fresh milk mixtures as weak as we do condensed milk we would soon discard the latter.

The percentage method of using milk is the best and should be used by all, for it is only in this way that we gain a correct opinion concerning the real composition of the food we are giving.

Drug Habit following Surgical Operations.

Patterson, in the American Journal of Surgery and Gynecology for October, makes a strong plea for more care on the part of the physician in giving morphine, codein, cocaine, etc., after operation or for trivial pain of any kind.

He calls attention to the fact that the substitution of codeine for morphine does not lessen the danger of forming the drug habit. Especially should we be careful in giving opiates to any one who has even in the past been a slave to the habit.

No matter how concealed the dose may be or how carefully hidden from the patient is the name of the drug, the nervous system at once recognizes an old comrade and will pull down the body about one's ears unless another and another dose is given.

Many of us need to carry around pasted in our hat some striking caution against the careless use of morphine and its allies.

Removal of the Spleen for Rupture of that Organ.

A case of rupture of the spleen in a boy age nine from being run over, is reported by Heaton in Pediatrics for November 1st, in which recovery followed operation removing the spleen entire.

On account of the severe hemorrhage the operation had to be completed very hurriedly but the wound healed kindly, except for a small stitch abscess.

The after history of the case showed the following changes in the blood due to the removal of the spleen:

A marked pathological leucocytosis better marked than in any hitherto recorded case.

A proportionate dimunition in the number of lymphocytes, notwithstanding the slight hyperplasia of the lymphatic glands.

A proportionate and large actual increase in the large mononucleated forms, which seems to throw discredit on the theory that the spleen is specially concerned in the production of such cells.

An abnormal number of the so-called transitional cells exhibiting changes in their nucleus and protoplasm, as in the transformation of large mononucleated cells into finely granular oxyphiles.

A remarkable want of evidence of interference with the ordinary red blood cells.

Atmospheric Moisture and Artificial Heating.

The importance of watery vapor as a constituent of breathing air is very great and is strikingly brought out by Wilson in the Sanitarian for November.

The difference between the humidity of the outside air and the ordinary heated air of our homes and office buildings is shown to be considerable.

The normal relative humidity of the air over the more populous portions of the country is 72 per cent., while in buildings heated by steam or hot water, the humidity was only 28 per cent., and from furnace heating it was as low as 24 per cent.

From these figures it is safe to assume that the average relative humidity in dwellings and offices during that portion of the year which requires artificial heating is about 30 per cent., or 42 per cent. less than the average outside humidity and drier than the driest climate known.

The evaporative power of the air at such a relative humidity is very great and its effect upon the respiratory apparatus is evident.

The economic side of such low humidity is also touched upon as it is estimated that one-fourth the cost of heating is expended in raising the temperature from 60 to 70. This expense could be saved wholly or in part accordingly as the humidity could be raised.

That is, a temperature of 60 deg. with a humidity of 70 per cent. is as warm as heating to 72 deg. under existing conditions.

Or our houses could be heated to 65 deg. with a relative humidity of 50 per cent. and still save 12½ per cent. over present cost.

Sun Fever.

Bell, of the U. S. Navy, in the University Medical Magazine for November, describes a tropical disease as he found it in Central America.

He says that the temperature of the sun is on the average 35 to 40 degrees hotter than the atmosphere and that of course the rays are more vertical.

The pathology is a local, low-grade, peripheral neuritis, with resulting vasomotor paralysis and edema of all the subtissues in the inflamed area.

It begins with a brief prodromal period, malaise, fullness of the head and slight initial pyrexia, soon these become aggravated and the fastigium of the fever begins with supraorbital headache, inflammatory swelling of the features of the face, particularly the upper part about the eyes, and the conjunctivæ become injected and edematous, eyeballs and sockets sore and vision impaired with photophobia. The local manifestation is not the ordinary sun erythema but the entire thickness of the integument is involved, the swelling being uniform, accompanied by pain and pitting on deep pressure. The treatment is symptomatic.

How to Preserve as Permanent Specimens Casts Found in Urine.

Boston, in the New York Medical Journal for November 4th, says that the disintegration of mounted casts is due to bacteria and to preserve them he recommends the following:

Liquor acidi arseniosi (U. S. P.), one fluid ounce; salicylic acid, half a grain; glycerine, two fluid drams. Warm slightly until solution is effected, when add acacia (whole tears), and again warm until solution is saturated; after subsidence decant clear supernatant liquid. A drop of formalin (40%) may be added if desired.

The drop of urine and casts is evaporated almost to dryness; a drop of the solution is added to the center of the drop of urine and mix with a fine needle carried from the periphery to the center. A cover glass,

moistened by the breath, is allowed to fall gently on the specimen.

A permanent ring of zinc white may be added. Five plates are shown sketched from specimens that had been mounted for two years and a half.

Observations on the Surgery of the Brain Based on Clinical and Experimental Evidence.

Crile, in a paper read before the Mississippi Valley Medical Association, says:

His experiments were performed according to the methods in vogue in physiologic research. Graphic records of the various phenomena were taken on smoked drums and the statements made may be verified by tracing in his possession. The clinical observations are based on 47 operations.

Traumatisms, Experimental.—Such as blows, compound fractures of the skull, bullet wounds, etc., in almost every instance affected respiration more than circulation. Death was produced in one instance by respiratory failure from the effect of a bullet that did not even touch the brain, but passed very close to the medulla. The effect upon the circulation varied greatly, sometimes slowing, sometimes acceleration, sometimes irregular action. The most important first aid indication in many cases would be for artificial respiration. A case of a gun-shot wound in the navy in the Spanish-American war died of respiratory failure, the beating went on for some minutes.

On Increased Intracranial Pressure.—Symptoms of pressure do not usually appear until the brain has been compressed 5 per cent. of its volume. (Experiment on dogs). The pulse is slowed sometimes to more than half its normal rate. Irregularity of rhythm may early develop. If the pressure is continued long, the cardio-inhibitory mechanism becomes exhausted and there is rapid heart action, alternating with slow. The vaso-motor centre is early affected and readily exhausted. Great irregularity in the rapidity of the heart's beats foreshadow dissolution of the cardiac centres and death. Respiration was in almost every experiment affected in advance of the circulation. The active phase of the expiratory act was first affected, then the inspiratory. The respiratory centre showed itself to be more sensitive than the cardiac and indicated earlier pathological pressure. When the brain is under pressure the amount of anesthetic necessary to produce surgical anesthesia is proportionately less. Sudden respiratory failure is likely to occur and an assistant should be detailed to administer artificial respiration, while the operator opens and cuts away the skull with as much dispatch as is consistent with safety to relieve the pathological pressure. Natural respiratory action is usually inaugurated as soon as the brain is relieved of its abnormal pressure.

Clinical observations support the experimental, that operations performed in the presence of sudden alternating rate of heart action with irregular rhythm are extremely unpromising. This state foreshadows breakdown of the centres and death.

On the Compressibility and Elasticity of the Brain.—Experiments shows that brain substance is practically incompressible, but that it has a considerable elasticity. The elasticity is a property of the brain tissue itself and is but slightly modiged by change in the blood pressure. The elasticity recoil, however, is modified by blood pressure. In elevation of depressed fractures, evacuation of blood clots, abscesses, etc., the elastic recoil is clinically observed.

On the Cerebellum.—On immediate lesion of the cerebellum, remarkable compensation take place. Animals may live after the ablation of the entire cerebellum. The absence of clinical symptoms, in the slow development of tumors or abscesses, is due to the compensation that takes place pari-passu with the development of the morbid process. Experiments show that when one lateral lobe of the cerebellum is removed there is a strabismus, such that the opposite eye is directed downward and outward while the eye on the same side as the lesion is little, if at all, deviated there is a nystagmus, such that the jerks of both globes are directed toward the side of the lesion; there are motor phenomena, consisting in partial or complete paralysis of the limbs of same side as lesion and increase in the muscular rigidity of the same side; there is an inco-ordination, such that there is reeling and rotation toward the opposite side from the lesion; there are sencory phenomena, including blunting of sensibility on the same side as lesion; the reflexes are greatly increased on the same side as lesion. The differences and confusions existing among clinicians and experimenters, regarding cerebellar phenomena, may be greatly due to the fact that the observers do not adopt the same rule in describing such symptoms, as reeling and falling to the right or to the left, as to whetehr it applies to the observer or the observed.

I have been able to verify in three different instances the deviations of the eye, while performing operations and while making explorations to search for tumors. In none of these cases were any effects

noted upon the eye after the actual irritation, caused by exploration, had been done. The cerebellum is a safe field for explorations. Experimental evidence proves that this organ does not act as a whole but that its halves, if divided medially, perform their functions equally well. While the cerebellum has a crossed action on the brain it has a direct action on the spinal cord.

In performing the operation on the brain, upon which the clinical observations of this paper are based, he used the trephine and the chisel each in a considerable number of cases and give unqualified preference to the chisel. Preference is given to the Horsely bone forceps for further operation on removing of the skull. The use of 10% solution of oil and bees wax, sterilized, to control the hemorrhage from the diploe, has proved most satisfactory. The wax is pressed into the bleeding surface and allowed to remain. A case of bullet wound taking effect upon the third tempero-sphenoidal lobe, cutting away a definite portion of brain was reported. The location of the lesion was at Reids base line, the posteriot border of the wound being in a vertical line above the anterior border of the external auditory meatus. The only symptom was the loss of ability to speak common names, in other words, the so-called "name centre" was destroyed. This case is to be later reported in detail.

The experimental work upon which these operations were based include a long series of experiments, part of which have been published and the remainder to be published in detail in later papers.

The Influence of Maternal Inebriety on the Offspring.

The mortality of infants born of female inebriates is 55.8% under two years according to Sullivan in the Quarterly Journal of Inebriety for October, while in sober mothers in the same walk in life only 23.9% die nnder two years.

The death-rate in the alcoholic family is also progressively high, the mortality rate for the first born being 33%, second born 50%, third 52.6%, fourth and fifth 65%, sixth to tenth 72%.

He shows conclusively that maternal inebriety is a condition peculiarly unfavorable to the vitality and the normal development of the offspring.

The primary influence of alcohol is due in part to the permanent effects of the poison on the maternal organism inducing a transmissible degenerate condition; in part to a direct toxic action on the embryo, owing to continued excesses during pregnancy and lactation.

In suppressing the female drunkard, the community not only eliminates an element always individually useless and constantly liable to become individually noxious; it also prevents the procreation of children under conditions most apt to render them subsequently, if they survive, a burden or a danger to society,

Pneumonia in Infants.

Pneumonia in children under two years of age, its diagnosis and treatment, is discussed by Northrup, in the Medical Age for October 25th.

The first point in the diagnosis is the tendency of the respiration-pulse ratio to depart from the normal of 4 to 1 and approximate 3 to 1.

Instead of 80 to 20, it approximates 120 to 40.

It is not enough to say that the respirations are rapid, but it is the disturbance of the respiration-pulse ratio that is important.

The second point is fever and the third rales, subscrepitant and crepitant over a circumscribed area and more certainly if limited to one side.

The treatment is first, hygienic, fresh air, temperature 65 to 68.

Second, the care of digestion.

Third, the use of water.

As for drugs, strychnine sulphate not less than 1-100 of a grain for any case, usually 1-60 every four hours for a child 18 months to 2 years old.

Poultices may be used for pain only intermittently—coal tar products *never*.

Traumatism of the Calvarium and Its Contents.

This, since the introduction of aseptic methods, is one of the most attractive fields of study, says Hopkins in the Brooklyn Medical Journal for November.

The prognosis of cranial injuries involving the base with escape of the cerebrospinal fluid from the ear is not necessarily fatal.

He considers the question of trepanning in fracture, though there be no depression or motor disturbances in the limbs, as settled in the affirmative.

A number of cases are reported which prove conclusively from the results, that no case of head injury, however apparently desperate, is absolutely without hope of relief by judicious operative procedure. So it becomes the duty of every surgeon to recognize the slightest injury to the head as

serious and to treat the most desperate case with some degree of hope, however slight.

Hemorrhage in the New Born.

In the Indiana Medical Journal for November Kinneman reports a case of hemorrhage in an infant living only thirty-six hours.

The hemorrhage was first noticed from the cord and about the umbilicus, but after retying and applying a compress moistened with Monsel's solution the bleeding stopped.

Twelve hours after birth the first discharge from the bowel contained some blood neither clotted nor fresh, but seemingly well mixed with the meconium.

Another child in the same family died in a similar way, and the mother's mother gave birth to two children who died of hemorrhage within a few hours.

No tuberculosis, syphilis, hemophilia, rheumatism of chronic character or other disease producing a cachexia or dyscrasia, could be developed in the family history.

MISCELLANEOUS.

Correspondence.

Mr. Editor:—We thank you for the marked copy of the September Journal containing the production of D. R. Neil, A.B., M.D., of Nashville, Tenn., criticising our article in the June issue.

We thank Dr. Neil for his observations on said article, nevertheless they were adverse. Yet we fear he failed to get the facts as stated by us, notwithstanding he read and reread the article, for he has charged us with saying cold destroyed the bacillus of typhosis, first quoting 'the disease ceases as soon as there is an appearance of hoar frost', making this the basis of his remarks.

If there was a point we tried to make plain, it was that cold weather put an end to the migrations of the filth conveyors, the flies, and not to the vitality of the bacillus typhosis; for there is no fact better established in medicine than that cold does not destroy the vitality of typhoid germs, though it may check their activity when bound in snow or ice. In the epidemic under discussion cold did not even limit the activity of the germs, but it did put end to the medium of conveyance, hence the epidemic subsided.

If the medium of propagation was infected wells, as Dr. Neil argues, would the approach of winter have jugulated the disease when proper material still existed? The germs were as active and vital in the wells during the winter as they were in the summer and fall, and the material, "soil suitable" for their development, was as abundant; for there were a number of families who did not contract the disease that were constantly drinking the water. We grant, and so said in article referred to. some persons who escaped may have been immune, but it was neither probable nor possible that twenty or twenty-five families had the "peculiar condition of ones physical self" to give them like power of resistance as others in families attacked, and future developments disclosed to be true. If the rains washed the germs in the wells, we admit and have seen this often demonstrated in our experience, and the disease was water-borne, as Dr. Neil suggests, the epidemic should have continued during the winter as the one reported in our former paper, and the epidemic in Philadelphia last winter; for, he admits, it is a disease of winter.

There can be only one solution of the question, if water-borne from infected wells: All the members of the twenty-five familes not attacked last year were immune, for they were all exposed by drinking the same water, but this is too untenable to believe, or the disease was not water-borne; besides many of these have fallen victims this summer, proving they were not immune. I cannot accept, and I do not think Dr. Neil believes, the epidemic would have subsided during the winter when "suitable soil" still remained, if the medium of propagation was infected wells and resumed its ravages again this summer in the very soil he pronounced unsuitable, and, not being proper pabulum, the epidemic ceased. If they were immune last winter and defied the invasion of the germs, they would have had like power this summer; therefore, if they were attacked this summer, they were certainly "suitable soil" last winter and fall; then, if not immune, they assuredly would have succumbed to infected water last winter. Furthermore, if parties not immune continue to drink suspected water and are not attacked, does it not logically follow the water is pure? The State Chemist so pronounced it, but I do not know whether he examined for bacteria or not.

The epidemic this summer and fall is again on the wane since the cool nights and mornings have put a quietus on the migrations of flies; but, if the source of propagation was infected wells, would it be subsiding now when there is still suitable material persistently imbibing the so-called

germ-laden water? I have seen some of the most virulent cases of typhoid fever in mid winter from infected wells, proving cold does not influence the medium of propagation as it does when flies convey the poison. Again, when infected water is the source of propagation, in my observation a very few escape, demonstrating a very small per cent. have the peculiar condition of system giving protection against the poison; for example, three or four years ago there was a family in the country with eleven inmates exposed to an infected well and the whole crowd, together with an imported nurse, who would not drink boiled water and who said she had had typhoid fever, were attacked. The neighbors who came to assist nursing and who refrained from drinking the water escaped. Yet the disease did not subside in autumn, but continued till mid winter when all the material was exhausted. In my experience there are a very few exceptions to this rule when the disease is water-borne.

Mr. Editor, I think I have shown the epidemic here last year did not subside for want of "suitable soil," but because the medium of conveyance, the flies, became extinct, and that I have demonstrated, when infected water is this source and suitable material still remains, the epidemic, as a rule, does not subside until all the material is exhausted or the source is removed.

The propagation of epidemic dysentery by flies was certainly well established by the army physician during last summer, so we will pass over that point.

We admit the germ of Yellow Jack has not been isolated and that comparatively nothing is known about its nature and habit, except that it flourishes most where bad sanitation exists. We did not say yellow fever was fly-borne, but its propagation was 'of vital interest and importance to every practitioneer of medicine.' It is plausible, however, if bad sanitation has much to do with the propagation and life of the germ of yellow fever, flies, in all probability, have something to do with its propagation. Abominable sanitation certainly is the home of flies, and as this improves they seek quarters more congenial to their nature.

We did say, in the article Dr. Neil criticised, malaria was in many instances, water-borne. It has been proven in the eastern part of North Carolina and in South Carolina that driven wells in infected districts districts do more to render a locality salubrious than any other means. In reading the Charlotte Observer a few days since we notice the Raleigh correspondent said this: "A Richmond firm is driving a 6-inch artesian well at Halifax. These artesian wells are doing more than anything else to promote health in the malarial regions." Dr. R. H. Lewis State Secretary Board of Health, has also shown in a paper that driven wells invariably ameliorated malaria in infected localities, establishing clearly malaria was propagated by infected well water. The same results have been obtained in South Carolina in malarial districts.

Mr. Editor, we are glad our humble paper created some notice and have enjoyed reading Dr. Neil's well written article and again thank him for the same.

G. A. Ramsaur, M.D.
China Grove, Oct. 19, 1899.

Antiseptic Midwifery.

We wish to notice briefly an article in your June number on "Antiseptic Midwifery" by Dr. McKenzie. We hasten to say that his paper is a true and exact statement of facts, masterfully handled, which should impress every physician who takes upon himself the responsibility of ushering human souls into this world of ours, and who also holds in his keeping the life, health and future happiness of the mother. We heartily agree with him in all his details as to cleanliness, both of himself and patient, for filth, whenever encountered under any condition, is a breeder of disease. But with all his technique, bringing about as near as possible absolute cleanliness, I beg to differ from him radically in regard to one, as we consider, very important point, and that is his attempt to render aseptic himself after having just left a case of erysipelas, puerperal fevers, scarlet fever, etc.

We maintain that a physician should not accept the responsibility of the puerperal state, at the same time having in his charge any case of sepsis. He who does so takes the life of his patient into his own hands and places in jeopardy that which he can not restore.

It matters not how thoroughly he may carry ont every detail of antiseptic midwifery, still he is not sure that he has thoroughly sterilized his hands, freeing them from the deadly germs of the destroyer. Should he fail to thoroughly cleanse his hands, he at once upon examinatian, conveys to his patient the germs of the disease he carries.

No more should we accept a puerperal case than we should do a laparotomy under such circumstances.

As to the vaginal douche, if our patient suffers from a leucorrheal discharge use it. If she is in perfect health don't meddle. Among the negro population one seldom

finds a case of puerperal fever, and of all people they are the most uncleanly. We maintain that though the germ, microbe or bacteria exist in the normal vaginal tract, in health it finds no suitable soil for its development. No doubt Dr. McK. will agree with us on one other point I wish to mention, it is the abolishing of what is known as "professional midwives." Usually they are a class of people who know how to tie a cord and remove the afterbirth, beyond this their knowledge is nil. Their ideas of cleanliness is very meagre and never practiced. More women, who have a false modesty of having men attend them, part with their health and happiness than from any one thing, and still the very legislators who endeavor to shield their homes from charlatans, are licensing such practice.

D. R. Neil, A. B., M. D.

Nashville, Tenn.

Editors Charlotte Medical Journal:

Dear Sirs:—In the course of an excellent article on the diagnosis of typhoid fever in the editorial columns of your Journal for September, I notice you give formulæ for the solutions and method of using the Diazo reaction. After considerable experience with the test, both practically and experimentally, I am satisfied that the formulæ originally published by Ehrlich, with the proportions for mixing the two solutions, advocated by Dr. Charles Lyman Greene, of St. Paul, Minn., is the best.

According to the original formula, solution No. 1 consists of a saturated solution of sulfanilic acid in a five per cent. solution of hydrochloric acid. No. 2 consists of one-half of one per cent. solution of nitrite of sodium in distilled water. Ehrlich used forty parts of No. 1 to one part of No. 2. Dr. Greene modified this by using one hundred parts of No. 1 to one part of No. 2. He (Greene) claims, and I think rightly, that the weaker solution of nitrite of sodium is less likely to produce false reactions. I have experimented with the stronger solutions, having used as high as one to ten (I think your formula is one to two and one-half) and have found many non-febrile urines even normal urine gives a reaction similar to that of typhoid fever, with very strong solution of nitrite of sodium, gives a reaction which produces a yellow foam, a false reaction.

I agree with you in regard to the value of the test and deprecate the misunderstanding that has arisen regarding the exact formula and the manner of using it.

Very truly yours,

J. P. Barber, M. D.

Minneapolis, Minn.

William C. McDuffie. M. D.

Three score years and ten this man lived and labored, and now he sleeps with his fathers.

As a shock of corn full ripe in harvest time he was gathered by the reaper. He was known as a man and as a physician far beyond the limits of his town, and those who knew him best will miss him most. In 1876 he joined the Medical Society of the State and soon became prominent in its progressive work. In 1880 he was elected one of the vice-presidents at the meeting in Durham, and at the Wilmington convention of 1885 he was elected president of the Society, which position he filled most honorably.

For the past several years his health had been feeble and his large practice he gradually relinquished after practicing medicine medicine for forty-four years.

In all these years how much pain he assuaged and how much suffering he relieved no man knows, as no record was kept—on earth.

In all these years of active toil among the sick and afflicted, how many weary eyes grew bright at his coming, how many furrowed brows were made smooth by the touch of his hand, no man can tell for we do not put these things down in a book but they are not lost. The greatest things in the noblest life are not more than these and no force or energy is ever lost, only transformed.

Acute Bronchitis.

Reilly, in the Medical Record, says that the commonest cause of this symptom, in adults, is the so-called uric acid poison; in children autotoxis from the intestinal canal. Reasoning thus he insists on the repeated cleansing of the intestinal tract in all cases, and aiding the skin and kidneys in the elimination of toxic products by diaphoresis and the ingestion of large quantities of water, and finally in the neutralization or hastening the elimination of the so-called lithic acid poison by various drugs. He concludes thus:

1. Acute bronchitis is a symptom.

2. The diseased condition of which it is a symptom is a toxæmia, which may be due (a) to the so-called uric acid poison, (b) to autointoxication from the intestinal tract, (c) to specific infectious agents.

3. The treatment with nauseous mixtures under the name of expectorants, is illogical and is opposed to modern therapeutics.

4. In every case we should endeavor to discover the etiologic factor and to treat the same.

Obstinate Hiccough.

It may be widely, but I do not think it is universally known that pure ground mustard is a valuable remedy with which to combat this condition. Put a tablespoonful of ground mustard in a teacup and gradually fill the cup with boiling water, stirring it until it is cold. Strain or let it settle and give one or two tablespoonfuls every ten or fifteen minutes. During the twenty or more years I have used it, it has seldom been necessary to prepare the second cupful for the same attack, and never the third, unless after having been absent sometime the hiccough returns. So far as known this prescription was first given to one of another race, by the wise woman belonging to a band of Spanish gypsies.

F. R. Millard, M. D.

San Diego, Cal.

The Pot and the Kettle.

A most extraordinary suit is now pending in the Superior Court of the city of Boston.

Mrs. J. C. Woodbury is suing Mrs. Eddy, of Christian Science fame, for defaming her character and sets the amount of damages at $150,000. It is thought that during the progress of the trial some of the claims of the Christian Scientists will be made public for the first time.

Mrs. Eddy claims, according to Mrs. Woodbury, to be the female representative of God in the world.

The work of Jesus Christ being incomplete she has been appointed to finish it, especially in regard to the principles of health and disease.

But it seems that the said Mrs. Eddy was not sufficiently amused in carrying on her work as indicated above, but took occasion parenthetically to refer Mrs. Woodbury to the seventeenth chapter of Revelations where she would find herself described as the scarlet woman in language at once accurate and complete. We have thought for some time that the men, who drove stakes for a circus tent, held the record for calling each other names, but they are evidently outclassed by the Christian Scientists and the cup should go by all means to Mrs. Eddy. Osteopathy is hull down on the horizon when it comes to talking out of school, but we hear some whisperings among the Osteopathic colleges, however they will never overtake the Boston aggregation until they run a few more bone theories through the *still*.

To a calm and dispassionate onlooker it seems that Mrs. Woodbury should not be too hard on her lady, for if a damaged stomach is simply a de'usion why is not a damaged character only the figment of a disordered imagination.

We would suggest that if Mrs. Woodbury will sit down and think she is not hurt for ten minutes three times a day immediately after meals in a glass of warm water, she will be all right in a short time.

She could then start an Osteopathic school in Boston with "No Christian Scientist need apply," as a motto, as we believe in fighting the devil with fire.

While this may be classed as professional advice, it is entirely gratuitous, and any remuneration will be firmly declined with many thanks. Besides we hold no license to practice in Boston.

Derangement of the Liver and Disease.*

Often we find a close relationship beteen the liver and certain diseases, so close in fact that there seems to be a dependence upon the liver to maintain perfect health. Nearly all febrile conditions are associated with hepatic disturbances, especially constipation or a jaundiced condition. This is seen in different forms of malaria, when the bowels are constipated, the digestion poor, the lymphatics engorged, skin yellowish, even true jaundice. In malaria troubles the administration of the sulphate of quinine often does not stop the ravages, simply because the alimentary canal is not in the condition to facilitate the absorption of quinine. The stomach and intestinal tract and liver are intimately connected with the nervous and circulatory systems, and one being deranged affects the functions of the other. If there is a deficit of hydrochloric acid in the stomach, often found in malaria, the quinine, especially if administered in capsules, pass through the bowels with the feces without being dissolved. In this condition, if the functions of the liver can be stimulated, there is an increase of hydrochloric acid in the stomach and the quinine is absorbed.

Again in portal congestion we have a similar condition, and the function of the liver is off, and biliousness, so-called, is the consequence. Bile is nature's purge, in that it digests or helps digest food which has not been digested in the stomach. It is also a decided laxative, the salts of the bile causing more fluid secretion to be discharged into the alimentary canal, especially the small intestine, and it certainly increases peristalsis.

Often when the physician wants to relieve a deranged liver, especially if functional, a brisk purge is administered and

* J. S. Moremen, M. D., Louisville, Ky.

the system, on account of the quick emptying of the alimentary canal, often loses considerable bile, which in reality should be reabsorbed. The drug administered should be a chologogue and a laxative, not a purge. Chionia. prepared by the Peacock Chemical Company from the chionanthus virginica, with the disagreeable properties of the crude drug eliminated, in teaspoonful doses three or four times a day, certainly stimulates the function of the liver, and causes a discharge of bile into the canal, but not in such quantities as to cause purging, but it acts as a laxative, which soon re-establishes an equilibrium between the organs of the digestive apparatus. Those who lead a sedentary life, and pay very little attention to the calls of nature, soon begin to suffer with constipation and biliousness in a mild form. This condition is very promptly relieved by the use of Chionia.

Typhoid Fever.

There are many handbooks of the science and practice of medicine both by American and European authors that are largely used as text books by the busy general practitioner. Right well do they answer the purpose of condensed medical literature that in small compass is to give ready counsel to active men at the least expense of time. However, to secure breadth of view, and a large culture that shall furnish data upon which to base correct opinion and successful practice, the profession needs a large number of systems of medicine. We know of no great work that equals Zeimsens Encyclopedia of medicine. The first contribution in the first volume from the pen of Leibermeister will repay the outlay for the entire work. When the reader has mastered the principles laid down in this incomparable chapter, he comprehends typhoid fever in its entirety, and though he may not be able to agree literally to all the authors views, he will surely feel that he has seen the disease from all points of view, and that he will be the better prepared to cope with this disease.

Pathological lesions as noted in his observations illustrate the hurtfulness of high temperature long sustained. Treatment rationally predicted on these anatomical findings look to the effectual modification and control of temperature. While one may not be able to accept literally his therapeutic data, it is nevertheless of vital importance to the best results attainable, to see to it night and day that the temperature shall not stay long at 103 or more. Antipyretic measures adequate in potency to lower it to a point where it can be tolerated by the patient without sustaining the injury due to those destructive retrogressive tissue changes consequent to, and inseperable from excessive fever heat. Many cases will need only calomel purgative during the first 8 or 10 days with a 3 grain dose of Acetanilid 12 M. or 1 P. M. A $\frac{1}{4}$ grain of morphine sulph. with 20 grains of quinine sulph. at nightfall. Intestinal antisepsis secured by Listerine, and Carb. Guaiacol which will effectually negate the free poison in the Alimentary Tract.

A minority of cases will require in addition full cold baths of Brandt to anticipate and prevent those graver manifestations that are sure to supervene in all cases that for a considerable period of time the average heat has been intolerably high. No impartial observer who will try in such cases the cold baths before irreparable damage to the organism has been wrought, can fail to be convinced of their influence for good. If however, their use be deferred till exhaustion shall have progressed, till reaction after their application shall of necessity be delayed and imperfect an appeal to them brings disappointment. Having been guided by these principles in the treatment of a large number of cases, the writer believes that Typhoid Fever should have a health rate of almost nil. He is equally certain that in spite of learning or skill, that he who complacently waits, "whistles down the wind" while Rome burns, must see the wrecking of many precious and invaluable lives along his professional pathway. The doctrine that temperature in this disease is no, or minor importance, is fatally erroneous.

C. M. Sebastum, M. D.

Martin, Tenn.

Dr. John Hey Williams, of Asheville, met with quite a serious and painful accident a short time ago. While driving along an embankment his horse became frightened and overturning the buggy fell across the doctor breaking his leg just below the knee. This means confinement and rest, and we hope that pain and danger will not complicate the case but that the doctor will be speedily restored to his patients and friends and that his useful and helpful life may long be spared.

I. N. Love, M. D., St. Louis:

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EUDOXINE has become widely recognized as a really effective intestinal antiseptic which is at the same time absolutely harmless, and, being tasteless, is pleasant to use. It may be administered for an unlimited period with absolute safety, rendering the drug especially valuable in the treatment of chronic intestinal troubles. Dose for adults is 5 to 15 grains three to five times daily, but larger doses may be given where required. Excellent results are reported from its employment in Typhoid Fever, Dysentery, Infantile Diarrhœa, Diarrhœa of Phthisis, Enteritis, and all catarrhal intestinal conditions, etc.

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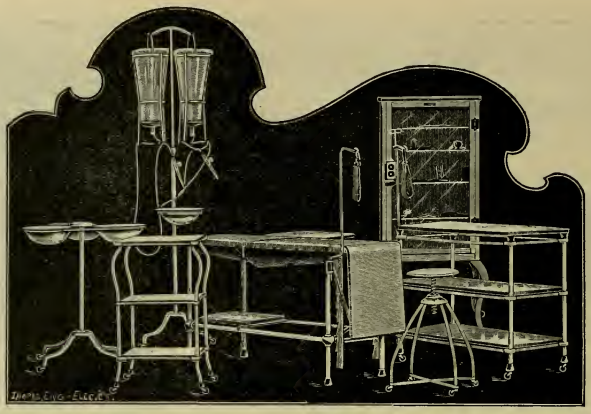

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M. Sig. Tablespoonful in wineglass, one-half full of water every three hours.

This is a valuable prescription for menorrhagia, where the patient is very nervous and weak from loss of blood. I shall continue to use these remedies."

C. O. Wildasin, M. D.,
Springfield, Ohio.

Mrs. Alice Battle, the wife of Dr. S. Westway Battle, of Asheville, N. C., died on October 29th, at their home "Buncombe Lodge," a short distance east of the city, Mrs. Battle was a daughter of Rear Admiral George E. Belknap, U.S.N., retired, of Brookline, Mass. Dr. Battle is well known throughout the country and the multitude of his friends and admirers are pained in their hearts to learn of his sad bereavement.

The ninth annual meeting of the American Electro-Therapeutic Association, was held in Washington, D. C. at Willards hotel, on the 19th. 20th and 21st of Sept. 1899. The convention was very successful in point of attendance and interest and a number of papers were read and discussed of scientific value and importance to the medical profession. The program included thirty-six papers and the report of seven standing committees on scientific questions relating to the medical application of the electrical current, with the best electrical apparatus extant. The proceedings of the convention will be found in their annual transactions to be published at an early date, The officers elected for the tenth year, are;

President.—Walter H. White M. D., Boston, Mass.; Vice-President—(1st) D. Percy Hickling M. D., Washington, D.C.; Vice-President (2nd).—Charles O. Files M. D., Portland, Me.; Treasurer,—Richard J. Nunn, M.D., Savannah, Ga.; Secretary.—George F. Bill, M.D., Harrisburg Pa.

The next annual meeting will be held in New York City, N. Y., on Sept. 25th. 26th., and 27th. 1900.

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GEO. H. SMITH, M. D., Brooklyn, N. Y."

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To keep pace with the ever growing city of Richmond, and with the ever advancing science and art of medicine, an entirely new hospital has been built, by Dr. McGuire and his son, to take the place, and better fulfill the purpose, of the well known St. Luke's Hospital. The new building is modern in construction and all its appointments are complete and elaborate.

It is located at the corner of Grace and Harrison streets in an elevated and healthy section and in a quiet but fashionable neighborhood. It is very important to have a nice place with every convenience in this day of modern medicine, but the most important thing after all is the men who do the work, and we are glad that from the old St. Luke's to the new, will go the skill and ripe experience of Hunter McGuire, together with the ability and ready assistance of his son.

These men have done great work in the old place, they will do greater in the new.

Typhoid Fever in Young Children.

In a paper on this subject by Dr. E. B. Montgomery of Quincy, Ill., read before the Miss. Valley Medical Asso., he reports three cases with unusual complications.

After an extensive review of the literature pertaining to typhoid fever as occurring in infancy and childhood, including a mention of Dr. Stowell's tabulation of 35 cases under three years of age, the author proceeds to detail three cases, two of which happenened in his own practice. In the first, an infant of nine months, the meningeal symptoms were so marked as for the time, to make a diagnosis of tubercular meningitis, highly probable. These symptoms began to subside about the 23d day of the fever, and convalescence was fairly established by the 25th day.

The second patient, a little girl of three and a half years, suffered from the development of double suppurative parotitis about the 25th day of the fever, and aphasia from an earlier period. The fever persisted for some time after the evacuation and drainage of both abscesses, but convalescense was finally fairly established about the 44th day from the onset of the illness. The literature pertaining to meningitis and parotitis as complications of typhoid fever is considered and many statistics showing their comparative infrequency given.

The third case, an unreported case of Dr. C.W. Rook of Quincy, Ill., occurred in a boy of three years, and was unusual in the development of swelling of submaxillary glands of one side on the 16th day of the fever. Later this suppurated and the pus was evacuated, and one week following a parotid abscess formed, resulting in death of the patient on the 33d day of the illness.

The author in an extensive search of the literature pertaining to typhoid fever, its complications and sequels, was unable to find but three other cases detailed in which the submaxillaries become involved in the course of the disease.

Dr. William Rittenhouse in The Medical Standard states:—"The fundamental idea underlying proprietaries is that some prescriptions can be better compounded on a large scale by the manufacturing pharmacist than on a small scale by the druggists."

When physicians hesitate to prescribe Tongaline, because it is a proprietary article, they overlooked the fact that this is a source of protection both to them and to their patients.

For instance all the salicylic acic used in Tongaline is made in the laboratory of the proprietors from the purest natural oil of wintergreen and the most eminent medical authorities declare this salicylic acid is the only one which should be taken into the system.

Scarcely any retail druggist has the wintergreen salicylic acid in stock and those who have it, purchase it in such small quantities that its cost when dispensed by them renders its use almost prohibitive, hence the synthetic salicylic acid is furnished on prescriptions, and this acid is most unreliable and its use is apt to be attended with very injurious results.

It is a simple business proposition that a proprietor who has spent hundreds of thousands of dollars in advertising his preparation should exercise the greatest care in maintaining its character by the purchase, regardless of cost, of the very best ingredients which the markets of the world will afford, as also that he will use the most improved and extensive machinery and appliance in compounding his product.

When a physician prescribes Tongaline in original packages or takes care that the genuine article is dispensed he can always rely upon "certain results from certain doses in a cetain time."

According to the Journal of Medicine and Science "Bill Nye," once acted as brevet-umpire in a game of base-ball between the "regular" and homœopathic doctors of Minneapolis. He says that,"the common error seemed to be the same as that made in the Garfield case—an incorrect diagnosis as to the course and location of the ball."

LOOK FOR THE GREEN LABEL.

"Green Drug"

Fluid Extracts

THE HIGHEST TYPE OF FLUID MEDICINES.

A Novelty---In What?

In the recognition of the fact that certain drugs, containing volatile constituents upon which their therapeutic value depends, lose their medicinal properties in the process of drying, or through long or imperfect storage.

In all such cases

We use the **green or fresh root, bark or plant,** gathered especially for us when in their prime.

Some kinds are prepared fresh, Others partially or wholly dried

But all are gathered especially for our Laboratory; carefully handled and immediately prepared into Fluid Extracts. The menstruum employed is **Alcohol** selected for **strength and purity,** whereby the non-medicinal elements are rejected and the liability to deterioration avoided.

Fluid Extracts **thus prepared** are perfect representatives of the drugs from which they are made.

THEY ARE CLEAN.	THEY ARE EASILY DISPENSED.
THEY ARE SIGHTLY.	THEY ARE THERAPEUTICALLY RELIABLE.

Old, shop-worn or worm-eaten drugs, however carefully manipulated, will not yield a satisfactory product when made with weak alcohol and water, or with wood spirit as a menstruum. Is it any wonder that commercial Fluid Extracts, as a class, are termed by a leading medical writer—the "Great American Fraud?"

Watch your fluid extracts.

Merrell's Fluid Extracts from fresh, choice drugs are powerful instruments for good in the hands of the observant physician.

All wholesals druggists will supply them.

Please write "Merrell's" on your orders.

THE Wm. S. MERRELL CHEMICAL CO.

Manufacturing Chemists,

SOLE MANUFACTURERS,

Cincinnati. New York. New Orleans. San Francisco. London, England

ESTABLISHED 69 YEARS.

$100,000 Hospital.

With the possible exception of New Orleans, Richmond, Va., is to have the largest charity hospital in the South.

It will cost in excess of a hundred thousand dollars and will be thoroughly furnished in the most modern style.

The institution will be a splendid monument to the philanthropy of the citizens of Richmond.

The credit of the enterprise is due the well known surgeon, Dr. Geo. Ben. Johnson, who by his energy and faith in the people made it a success from the very start.

The hospital will be connected with and under the management of the Medical College of Virginia.

Large hospitals of this kind properly conducted serve not only as a noble charity but advance the science of medicine as well.

Obstipation and Its Radical Treatment.

In a paper read before the Miss. Valley Medical Association Thos. Chas. Martin says that the rectal valve is an individual anatomic organ in itself and must now be reckoned with in studying the operations of the integral mechanism of defecation.

When the muscular elements are ralaxed and the gut is either greatly dilated or else is even in lesser measure distended, the valve is passively supported by its fibrous band across the channel to resist the hurried or uncontrolled descent of the feces. The presence of the band of fibrous tissue under the free margin of the valve provides a *control* to receive or retain a bolus, or, it may be said, the several valves receive a series of boluses till a sufficient pressure is made to stimulate the complex involuntary mechanism of defecation to further propulsion of the feces or to a reversed persistalsis. The presence of the feces or the involuntary movements incident to their presence, signals the consciousness to co-operative voluntary expulsory effort or gives warning of the necessity of voluntary resistance. The valvular arrangement of the rectum provides for the minimum expenditure of energy on the part of the voluntary forces for the reason that the gut's contents are collected on the surface of the unyielding sacrum and steadied there to receive the pressure of the really expulsory voluntary effort. Such an arrangement of the feces further facilitates defecation for the reason that the entire contents of the rectum are not rushed upon the anus at once.

If it be the function of the normal rectal valve to beneficently retard the descent of the feces it is obviovsly true that it may be the especial property of the valve, in certain other than normal conditions, to maliciously obstruct the descent of the feces.

The Symptoms of Obstipation: The patient is the subject of more or less chronic irregularity of defecation. He sometimes makes frequent partially successful attempts to evacuate the rectum, but may experience an unrequited desire for stool. The patient acquires the reprehensible physic habit. In time the periods of obstipation are interrupted by diarrhea. There is commonly an ineffectual straining at stool except for fluid feces.

The writer describes a method for division of the obstructing valve and presented cases.

E. Lambert Yourex, M. D., Baltimore:

I wish to speak of "Maltine cum Creosote," having taken it myself for indigestion which attacked me some time ago and seemingly became persistent in spite of treatment.

I was somewhat "run down" as to general health, and I believe the attack was much due to this circumstance. Digestion was slow and imperfect, especially of the starches. The stomach seemed to be in an atonic condition.

Knowing creosote to be indicated in such atonic condition and remembering I had a sample of "Maltine cum Creosote," I decided to take it, which I did in small doses of a drahm after meals. It began to do good work immediately and after taking the bottle I find myself almost cured.

I am, therefore, pleased to state I have found a new indication for a combination which I consider one of the most valuable of the Maltine Preparations.

M. A. Auerbach, M. D., New York:

Mr. W. D., aged 23, resides with his parents on Madison street, a few blocks from my office, called me in some weeks ago for treatment. I found the young man in bed and in a very bad condition. He was not only suffering from a severe injury received whilst following his vocation, but also with a severe cough with copious "coffee-ground" expectoration, which, upon microscopical examination, proved to be tubercular. It is now about two weeks since I started him on "Maltine with Creosote" and to my astonishment found upon my last examination that his cough and expectoration had both ceased. I find, upon palpation and phenendoscopic auscultation, great improvement in his right lung as well as the apex of the left one. I can't speak enough in favor of "Maltine with Creosote" and shall use it upon all my pulmonary patients hereafter.

IN SURGERY AND GYNECOLOGY,
IN DISEASES OF THE RESPIRATORY SYSTEM,
IN DISEASES OF THE DIGESTIVE SYSTEM,
IN DISEASES OF THE EYE AND EAR,
IN MALARIAL, TYPHOID AND ERUPTIVE FEVERS,
IN GENITO-URANARY AND CUTANEOUS DISEASES,

and in the general antiseptic treatment of disease of every character, Listerine has established an enviable reputation, thorough clinical test having demonstrated that no other one antiseptic is so well adapted to the general requirements of the Physician and Surgeon, for both internal and external use, as this carefully-prepared formula of essential oils, ozoniferous ethers, and benzo-boracic acid—all antiseptics and chemically compatible.

Literature on demand.

LAMBERT PHARMACAL COMPANY,

ST. LOUIS.

Sole Makers of Listerine.

Treatment of Malaria.

Dr. A. G. Servoss, (Medical Council, October, 1899) states that we have two classes of patients who cannot take quinine; First, those who do not like the inconvenience which it causes, such as headaches, dizziness and ringing in the ears. Second, those to whom it is rank poison, and to whom under no circumstances should it be given. He refers to a case in which one grain of quinin, given without the patient's knowledge, will bring on complete collapse, with cyanosis, unconsciousness and symptoms of heart failure. Another in which a small dose will bring on all the symptoms of scarlet fever in its malignant form. He states that he could name a large number of cases of erythema and urticaria due to the same cause. In all these cases in which quinin is not well tolerated he is in the habit of giving salicin in ten grain doses, three times a day, and also three grains of quinalgen, three times daily. The secretions should be kept active by the use of vegetable or mineaal cholagogues and diuretics.

Pulmonary Affections Resulting from La Grippe.

The prevalence of La Grippe as an epidemic throughout the country has attracted the attention of the medical profession, and many new and varied forms of treatment has been recommended for this unpleasant and oftimes dangerous complaint. While this disease originating as is undoubtedly does in certain climatic, conditions, and in its first appearance characterized by the symptom of an influenza or severe cold, may not be considered in itself as a grave affection, its tendency to leave certain organs in a debilitated or deranged condition, gives it an importance it otherwise would not merit.

We will refer briefly to a case that came under our notice some years ago. Miss. S. had a severe attack of this disease. It yeilded to treatment, but left the patient with a very troublesome cough of a bronchial type. We had previously to this, ordered the refined petroleum, termed Terraline with good results, and commenced to use it in this case. The patient had taken cod liver oil emulsion prior to this attack, but as it deranged her stomach, she gladly substituted Terraline. This she had taken at intervals for three years since when suffering from colds, or bronchial troubles, and always with best results, being convinced that its effect upon the mucous membrane is soothing and beneficial and that it has prevented the loss of flesh incident to such cases. She tells me she does not need sheery wine as a vehicle, for it is tasteless and in no way unpleasant. Whenever she takes cold she resumes its use.

A second case of cold and persistent cough, the patient being advanced in years came under my care. Mrs. G. had been suffering for weeks with a troublesome cough, and tried numerous remedies without relies. I advised her to give Terraline a trial. She did so, and to her surprise one bottle entirely relieved her and she has the greatest confidence in the remedy, which she considers almost specific in troubles of this character.

The value of petroleum as a remedial agent has been too fully established by the medical profession to require additional proofs of its efficacy. It is of undoubted value in colds, coughs and tuberculosis and when administered in combination with creosote, its beneficial effects are speedily evidenced in the disease last named.

We prefer the refined product Terraline to all others, it being acceptable to the stomach of even delicate patients, easily assimilated and without any unpleasant effects.

We have recommended it in cases of lowered vitality, anemia and imperfect nutrition, with confidence that beneficial results would follow its nse.

In cases of La Grippe, we believe that bronchial or pulmonary troubles are apt to follow, even when the primary affection has been controlled by an appropriate course of treatment. It is an established fact, that the sequelae of this disease manifest themselves in the organ that is in a weak or an abnormal condition, be that organ the lungs, the heart, the kidney, or the liver. Our observation leads us to conclude that the former of these organs are most apt to be affected, and that bronchial pneumonia and tuberculosis are the diseases that most frequently follow grave attacks In all such cases, we consider Terraline promptly and persistently administered the remedy, par excellence.

H. E. Woodbury.

Washington, D. C.

"Coca" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain, however. Robinson's Wine Coca we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of cocaine being always determined by careful assay.

With Chill November

The human economy usually demands an increase of heat. When the normal process of waste and reconstruction is retarded, as is often the case in Anaemia, Bronchitis, Phthisis and Grippe, TERRALINE serves to establish a uniform heat genesis. So many physicians have found this purified product of petroleum efficacious in the treatment of all catarrhal affections of the respiratory tract that other busy physicians will welcome TERRALINE as a nutrient caloric for the cold season. In Phthisis, Bronchitis, Pneumonia, and the general malaise attending a weak stomach and loss of appetite, TERRALINE encourages stimulation and repair and promotes normal action of glandular, digestive and eliminating areas.

Samples for clinical confirmation of these claims will be sent upon application.

HILLSIDE CHEMICAL CO.,
NEWBURGH, N. Y.

MED. A. B.

Sanmetto in Anemic Undeveloped Young Women.

I have used Sanmetto with profit in a case of a young woman who was troubled with a very irritable bladder and urethra, caused from an excess of uric acid crystals in the urine. The Sanmetto accomplished what I did not expect. The mammae had never developed very much, nor the chest and shoulders. She was also quite anemic. I gave her a bottle of Sanmetto with no apparent improvement except toward the last she felt a little more vitality. I then procured another bottle at the drug store here and gave her about half of it. There is now a marked improvement in her general health, the mammae are about double the former size; her shoulders and neck are becoming very much more plump, and her chest is so much broader that she can scarcely wear the clothing worn before. She is looking very much better. But nothing seems to dissolve the uric acid crystals as yet.

F. E. Doane, M. D.
Kansas City, Mo.

Acute Bronchitis

and Broncho-Pneumonia which becomes prevalent as the cooler weather approaches are frequently accompanied by persistent and annoying cough, which does not yield to the ordinary methods of treatment. A few applications of medicated Vapor Massage with the Globe Multinebulizer gives complete relief in these cases, by removing the congestion and inflammation and prevents the development of more serious conditions such as Tuberculosis, Chronic Bronchitis, Fibroid Phthisis &c.

The accompanying cut represents a Globe Multinebulizer combined with Air Compressor and Receiver, making a very practical yet inexpensive outfit, which is especially suited to the requirements of the general practitioner.

Circulars describing various styles and combinations will be sent on application to the Globe Manufacturing Co., Battle Creek, Mich.

Bismuth Subnitrate, like calomel, justly forms the mainstay in the treatment of all forms of gastro-intestinal irritation and all their concomitants. Unlike the latter, however, the subnitrate is open to very serious objections, not the least of which is the large dosage required and the unpalatable and unsightly "shaken mixture." These disagreeable features are entirely absent when soluble bismuth is used, bismutum phosphoricum solubile, known also as Bisol. The salt has a slightly alkaline taste and dissolves freely in water, making a perfectly clear solution. It thus permits the use of bismuth internally in a form pleasant alike to the eye and to the palate. The very small dosage, too, is a signal advantage, 3 to 7½ grains being ordinarily sufficient. It is practically harmless also, as even when used hypodermatically in animals no injurious influence was noted. The indications for its use are those of the bismuth salts generally and indeed at the Children's Hospital at Berlin it was found unsurpassed in the treatment of summer diarrhoea, that of typhoid and even that of phthisis. In gastralgia, and in vomiting from any source, it is invaluable. Its marked inhibitory influence on the growth of bacteria make it an efficient intestinal antiseptic. It is precipitated by acids and alkalies.

To Battle & Co., St. Louis, Mo:

I had rather a queer experience with your sample of Ecthol. I took it 20 miles North and gave it to Nicholas Diaz. He has had Scrufula for four years and has paid out in that time over one thousand dollars. He took a teaspoonful exery two hours for four days after that a teaspoonful every four hours untill he had used two bottles. He walked in here today, cured. All signs of swelling and those awful Scrofula sores and blotches on his face are gone. Of course his soft palate was destroyed by the disease long ago, and he thought I could make him a new one, I replied only God can do that. He paid me enough so I can buy more of your remedies, and I shall keep a supply on hand. I buy from Dr. Barry of Durango, Mexico who orders for me from San Antonia, Texas.

Chas. A. Bailey, M. D.
Canatlan, Durango, Mexico.
September 29th, 1899.

6

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_2)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER.
HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Glycerine combined with Ozone)

IS THE MOST POWERFUL HEALING AGENT KNOWN.

These Remedies cure all Diseases caused by Germs.

Successfully used in the treatment of Chronic and Acute Ulcers (Specific or not),

Skin Diseases, Eczema, Psoriasis, Salt Rheum, Itch, Barber's Itch, Poisoning Ivy, Acne, Etc.

Hydrozone, applied to any open diseased surface, destroys the pus leaving the tissues beneath in a healthy condition. Then **Glycozone,** being applied to the clean surface, stimulates healthy granulations and heals the sore.

Inflammatory and Purulent Diseases of the Ear. Otitis Media, Etc.

By means of a glass syringe, inject **Hydrozone,** either full strength or diluted, and complete the dressing with a small roll of cotton well impregnated with **Glycozone.**

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each "Hydrozone" and Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium, and large size bottles, bearing red label, white letters, gold and blue border with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border with my signature.

Marchand's Eye Balsam cures all inflammatory and contagious diseases of the eyes.

PREPARED ONLY BY

Charles Marchand

Chemist and Graduate of the "Ecole Centrale des Arts et Manufactures de Paris" (France.)

Charles Marchand, 28 Prince St., New York.

Sold by leading Druggists. **Avoid imitations.** ☞ **Mention this Publication.**

Hydroleine is a pancreatized Emulsion of Cod Liver Oil (Lofoten) obtained from fresh livers. Based on scientific principles. Each dose contains pre-digested Cod Liver Oil. The unpleasantness of the oil is thoroughly disguised, therefore palatable, and well borne by weak and delicate stomachs. Increases the appetite, improves digestion. All wasting diseases are greatly modified by its use. Creosote and all tonic remedies are compatible with **Hydroleine**, and is admissible in all seasons and climates.

Literature sent to physicians on application. Sold by Druggists. Manufactured by The Charles N. Crittenton Co., Laboratory, No. 115 and 117 Fulton St., New York.

IF you have a case of **DIABETES** and are not familiar with the high therapeutic value of **EULEXINE**, let us send you clinical reports of cases successfully treated with this drug.

THOMAS PHARMACAL CO., 95 Broad Street, New York.

THE WINKLEY ARTIFICIAL LIMB CO.

Largest Manufacturers of Artificial Legs in the World.

Patent Adjustable Double-Slip Socket **ARTIFICIAL LIMB.**

Warranted not to Chafe the Stump.

PERFECT FIT GUARANTEED From Casts and Measurements.

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(Department A.) **MINNEAPOLIS, MINN.**

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DEAR DOCTOR :—Please call attention to the following in the next issue of your journal.

The meeting of the Southern Surgical and Gynecological Association will be held in New Orleans, December the 5th, 6th, and 7th, under the Presidency of Dr. Joseph Taber Johnson, of Washington. Prospects are splendid for successful session. Members of the med.cal profession are cordially invited to attend.

Very sincerely yours,
W. E. B. DAVIS.

Mississippi Valley Medical Association—Surgical Section.*

Beta-Eucain as an Anesthetic in Eye, Nose and Throat Work.

Dr. William H. Poole, Detroit, Mich., read this paper, in which, after reporting a series of cases in which this agent was used, he drew the following conclusions :

1. Eucain is decidedly less toxic than cocain, therefore superior to it.

2. Its aqueous solutions keep well and can be sterilized by boiling without destroying the activity of the drug.

3. It produces anesthesia equally well and sometimes better than cocain.

4. It is superior to cocain, in that it causes no heart depression or other unpleasant systemic effect.

5. It causes no mydriasis, and no disturbance of accommodation, which is an advantage in some cases.

6. It is less dangerous to the cornea than cocain, inasmuch as it does not cause a desquamation of the superficial epithelium.

*Abstract of Proceedings of the Twenty-fifth Annual Meeting, Held at Chicago, Oct. 3-6, 1899.

Dr. I. N. Love, of the Medical Mirror, has been saying some very unkind things about Dr. Geo. M. Gould. of the Philadelphia Medical Journal. While Dr. Love has expressed his views in strong terms, yet he has had good reason for it. When a man attempts to dictate the policy of all the journals of the country, aud to hold his own up as an example of purity, he is apt to get into trouble. At the same time that Dr. Gould has been calling other journals names for carrying proprietary medicine advertisements, he has carried in his own journal the advertisement of at least one remedy, which is advertised in the public prints as a panacea for many of the ills of mankind.—*Wisconsin Medical Record.*

We notice the marriage of Dr. L. G. Frazier, of Port Norfolk, Va., to Miss Belle B. Hemstreet, daughter of Rev. Oliver Hemstreet, of Baltimore. We congratulate the doctor upon his choice and wish for both a long life, with many joys and few sorrows.

The Charlotte Medical Journal.

Vol. XV. CHARLOTTE, N. C., DECEMBER, 1899. No. 6.

Immunity.

By Dr. J. F. Peavy. Asheville, N. C.

Immunity, in the widest sense, may be defined as the capacity of the organism to protect itself from agencies which tend to injure or destroy it. In this broad sense, the factors which contribute to it would include acuteness of brain, strength of will, vigor of muscle, in fact, the various means which enable the organism to survive in the struggle for existence. All these factors help to make up this vital resistance which constitutes immunity.

In the limited medical sense, the term is used to express the capacity of the organism to protect itself from the invasions of pathogenic microbes. The division into natural and artificial immunity, I regard as objectionable on the ground that all immunity is natural, due to physiologic reactions of the organism. It may be inherited or acquired. Inherited immunity forms part of the endowment or germinal capacity of the individual derived from his progenitors just as his other inherited capacities are. It is based upon biologic habits bred into his progenitors by reactions to the causes of disease, with reference to which the immunity exists. It is itself acquired, the difference between it and individually acquired immunity being that successive generations have helped in the acquisition of this bit of biologic property.

Race immunity has been built up largely through a process of elimination. Contact and conflict with disease germs have tended to eradicate susceptibility by destroying the vulnerable. The negro race possesses a relative immunity to malaria acquired through ages of conflict with the malarial plasmodium in the jungles of Africa. Persons of the white race who have lived for long periods in malarious localities acquire a greater resistance to the disease than is possessed by persons not exposed to its influence. There is reason to believe that the inhabitants of localities where yellow fever is endemic frequently acquire immunity to the disease without having ever experienced it. It is certain that they are less liable to contract it and have it in milder form when they do contract it than persons who have not been exposed to the disease or the conditions which cause the disease. The Indian is very susceptible to tuberculosis and smallpox due, no doubt, to the fact that until the white man came he had not been brought in conflict with these diseases. It is a matter of common observation that during the prevalence of almost any infectious disease cases occur in which the symptoms are mere suggestions of the fully developed disease. These are cases in which the individuals possess relative immunity, affording not absolute protection but enabling them to throw off the infection before it makes any considerable inroads. Persons who escape altogether, although fully exposed, do so by virtue of possessing, for the time at least, absolute immunity.

Immunity is a variable quantity dependent in large measure upon the general tone or vital resistance of the organism. Most of us possess, at least, relative immunity to the ordinary diseases with which we come in contact. The pneumococcus, for illustration, we carry about with us almost constantly in our upper air passages. It only becomes a source of danger when some unusual stress is put upon the system, as exposure to sudden changes of temperature, prostration from excessive or unduly prolonged physical or mental effort, debilitating diseases or innutrition have put the organism off its guard or lowered the vital resistance.

Besides the general immunities or vital resistance possessed in common in varying degrees by the race, there are specific immunities, as a rule individually acquired, with reference to particular diseases. These involve a specific reaction of the organism, and when persistent are grounded in an established biologic habit or capacity.

The means through which protection or immunity against germ invasion is secured may include mechanical barriers, special forms of cell activity, germicidal action of the blood and the generation of antitoxic substances in the system. Among mechanical barriers the skin and mucous membranes constitute the most important. Abrasions and irritations of dermal and mucous surfaces favor infection by furnishing an *atrium* for the admission of the germs. Infection through the respiratory tract, es-

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pecially infection by the pneumococcus or tubercle bacillus is doubtless in a large proportion of cases secondary to mucous disease. The mucous secretion might also be reckoned among mechanical protectives serving to entangle germs and secure their expulsion.

The blood itself appears to exercise a germicidal action aside from the peculiar process of phagocytosis or the action of direct antitoxic principles developed in it. This direct germicidal action is doubtless dependent upon the oxidizing capacity of the blood. Hemoglobin appears to possess the property of splitting the oxygen molecule and freeing its oxygen in the atomic, nascent, or polarized, condition, thus heightening its chemical activity. As is well known, many antiseptic and germicidal agents are such by virtue of the property of liberating nascent oxygen. This direct oxidizing capacity is doubtless an important factor in disposing of germs when introduced into the circulation.

The function of phagocytosis exercised by the leucocytes and to some extent by the fixed tissue cells of an infected area is perhaps the most important as it certainly is the most remarkable and interesting process by which the organism attempts to exterminate invading microbes. One of the first reactive effects of the introduction of infective material is an increase in the number of leucocytes in the blood. At the same time these militant cells begin to be mobilized about the focus of infection. By emigration into the inter-vascular spaces they are enabled to come at the enemy more effectually. The local tissue cells also undergo proliferation and take part in this battle royal with the microbic hosts. The leucocytes and cells of the body on the one hand and the microbes on the other are energetic feeders appropriating nutriment greedily and multiplying rapidly where the conditions are favorable. In this conflict the opposing hosts attempt literally to eat each other up and hence the name phagocytosis given the process by Metchnikoff.

Pathogenic microbes, as a rule, are not content with living at the expense of their host, but also generate poisonous principles called toxins which act, it may be, at the point where produced, but may also be absorbed into the circulation and produce effects upon organs and structures remote from germ activity. These effects constitute the toxic phenomena of infectious diseases. To combat these chemical poisons the organism must needs react in a specific way to each variety of infection generating antagonistic chemical bodies called antitoxins which tend to destroy the toxins and arrest the development of the germs producing them. It is through this capacity to generate antitoxins that immunization, as generally understood, is effected. There is doubtless much of truth as well as of beautiful theory in this doctrine of toxins and antitoxins. The spontaneous cure of infectious diseases may be said to be due to a natural reaction of the organism, one of the factors in which is the production of antitoxins. Doubtless the importance of this factor as compared with the oxidizing action of the blood and the process of phagocytosis is much overrated in present day medical opinion. These three factors in the main make up the vital resistance of the organism and constitute the basis of immunity.

Antitoxin production while not more important may with truth be said to be more specific than the other two. Oxidation affects any oxidizable material be it germs, toxins or simple waste; the phagocytes are omnivorous, with a propensity to eat everything in sight; while an antitoxin is supposed to act selectively on the offending germ and its toxins.

The place and mode of antitoxin production are still matters of uncertainty. In localized infectious processes, it is reasonable to assume that it is produced mainly in the vicinity of the infected area and is perhaps also mainly a function of the leucocytes. Where the toxins developed are disseminated throughout the system and especially where the infection is general, it is equally reasonable to suppose that the cells of the body at large take part in a general reaction.

The nature and mode of action of antitoxins are still obscure. Whether they act as chemical antidotes, thus neutralizing the toxins and killing the germs, or whether they decompose them by a kind of catalytic action are matters still to be settled. Recently the latter view that they are enzymes and act by inducing a sort of fermentive decomposition has gained support. At least, one such antitoxic principle has been isolated by Dr. Woods of the U. S. Agricultural Department and shown to possess high oxidizing capacity.

This brings us to the consideration of immunity as produced by the artificial introduction into the circulation of toxins and antitoxins, for example, tuberculin, watery extract of tubercle bacilli, *et sera*. Immunization by the introduction of the direct products of tubercle bacilli is no longer a problem. It rests upon a rational basis as well as having been done in numerous instances both in animals and human beings. It is based upon a natural reaction and when

persistent is maintained by a biologic habit impressed upon the cells of the organism. The introduction of the toxins only is artificial, the immunity is natural and does not differ from immunity acquired by reaction to infections in the ordinary way. The continuance of the immunity implies the habit or capacity to continue the production of the antitoxic substances.

The great field of usefulness in the future of the direct products of tubercle bacilli will undoubtedly be in the immunization of susceptible but uninfected individuals. In persons of strong family predisposition, it would seem quite possible by the use of these toxins along with measures which increase the reactive vigor of the organism to develop sufficient resistance to protect from infection.

The use of these agents to immunize persons already infected is quite a different matter. Here we have another factor, the toxins let loose upon the organism by the infection itself and other infections so often co-existing. It is very frequently the case that the organism has more toxins than it can dispose of without any re-enforement from extraneous sources. In early cases that have not made much progress, where the reactive vigor is good and the tubercular process is not developing as much toxin as the individual can tolerate and react to, it is possible to secure immunization earlier by the introduction of additional toxins. Even in such cases there is always the danger of exceeding the point of successful reaction and thereby weakening rather than strengthening resistance. Furthermore, in such favorable cases there is always a large element of probability that the organism will succeed in immunizing itself, thus working out its own salvation. This seems to be the explanation of the spontaneous recoveries now known to occur so frequently.

In another class of cases, where the organism succeeds in erecting mechanical barriers about a focus of infection thus limiting the spread of the infection and the diffusion of toxins, the condition may become nonprogressive but remains as a constant menace. In such cases there is good rational ground for attempting to immunize the patient by the toxin method.

If the definition of immunity as the capacity of the organism to proteet itself from pathogenic microbes be accepted, there seems to be no rational ground for the claim of immunity produced by antitoxic sera. That a cellular reaction or habit can be induced by a substance wnich does away with the necessity far that reaction or habit appears to be an illogical claim. It contradicts a general biologic law that the necessity for a function creates the function or, stated conversely, the disuse of a function destroys it.

A kind of protection may be afforded by the introduction of antitoxic substances while present and circulating in the blood. Continued protection would necessitate the continued introduction ef the antitoxins. The claim could scarcely be made that these unstable nitrogenous bodies remain permanently in the blood.

The claim can certainly not be reasonably made that serum cures are better than other cures of tuberculosis on the ground that the patient is immunized as well as cured.

The direct toxin treatment has no rational claim to destroying the germs of tuberculosis any more effectually or specifically than any other method that cures. If I understand its advocates aright, the cure is the result of a natural reaction of the organism. Now it happens that all cures are the results of natural reactions of the organism unless indeed it be serum cures. In some cases it may be spontaneous, in others it may be aided by agencies which augment the reactive vigor, but in all cases the reaction itself is natural. This reaction with the capacity to continue it or repeat it upon occasion constitutes immunity and is just as specific in one case as another.

Theoretically, serum cures may be effected without any reaction on the part of the system, inasmuch as the agent is supposed to act by virtue of its own properties directly on the toxins and the germs producing them. It cannot be claimed, however, that the cells of the organism by having their work done for them are better enabled to protect themselves from future invasions.

To sum up: Special immunity is part of the general capacity of the organism to protect itself from agencies which tend to injure or destroy it. The reactions by which it is secured are part of the struggle for existence and constitute fitness to survive with reference to the special conditions under which they take place. They are based upon the general reactive vigor of the organism, The production of special antitoxic principles implies a specific reaction of the cells. It is based upon a specific reactive capacity. Without this specific reactive capacity no reaction could occur no matter what amount of toxins are introduced. This capacity becomes one of the varied differentiations which make up the sum total of the body's functions through which the vital force is expended. Like every other function, it is conditioned absolutely by those fundamental processes, nutrition and oxidation.

The Role of Heredity in Tuberculosis.*

By Paul Paquin, M. D., Asheville, N. C.

This paper was prepared in a hurried manner as a substitute for the expected essay of one of your members, consequently contemplates only the provocation of a discussion on a most interesting and in many ways a very practical question. Nowadays moralists, pathologists and philosophers in and out of the medical profession have much to say concerning the importance of the laws of heredity in tuberculosis, and the factors that may influence humanity adversely in the case of marriage of tubercular individuals. Indeed, there has been proposed some form of legislation to prevent the marriage of the unfortunate thus afflicted, and I myself, some years ago, read a paper before the American Public Health Association favorable, in a measure, to the views of those extremists who would stringently rule marriage, and published later an article of the same tenor in the Arena. But with me, as with most others who have carefully observed the development of the sciences which contribute to a better understanding of immunity and disease, my mind has gradually changed in its attitude, and now I find before me at least plausible theories, supported by observation, tending to discredit the gloomy reflections of the past on the subject.

Human experience at this date seems to sustain observations in animal life in the idea that inheritance direct plays no damaging role with respect to the development of the disease itself in our progeny, save that it influences sometimes meagre physiques; that on the contrary it probably works for good at producing a measure of immunity.

For our purpose we will divide heredity into two classes, viz.: Direct normal heredity, or the transmission of parental physical characteristics to a child; direct morbid heredity: the transmission of a disease from parent to offspring. I will not consider indirect transmission of any kind. Heredity in its broadest sense is subject to a different and more comprehensive classification, but we need not enter into the channels into which it leads.

The questions of importance are: Is tuberculosis hereditary? If so, in what sense? And finally, what practical use can the profession derive in knowing the truth about the matter? What good for the people generally?

To the first query it were folly to make a categorical reply, for with our present knowledge and experience there seems no way to escape vagueness. That tubercular parents after being ill may transmit to their offspring the robust physical qualities of their former self by direct inheritance I suppose we have all seen. And yet that some such children, born with apparently healthful constitutions afterwards develop tuberculosis we are also aware. Now what part does the laws of inheritance play in the latter instances? It seems to me that the development of tuberculosis in such cases is rather the result of infectious environment than from any rule of heredity, for even a robust person, when the lungs are predisposed by such accidental causes as a slight cold, or when the natural forces of cellular preservation and constitutional resistance are by any cause lowered, may succumb to local and later to general tubercular infection. And how many times such conditions arise in a child's life, living in a home in which the air they breathe is often constantly polluted by floating bacilli raised from the dust.

Observations and experiments of animal life have resulted in the discovery of very few well authenticated cases in which tuberculosis developed in utero, and these few instances resulted, it would appear, from some rare form of general tuberculosis involving the uterus and placenta. They must be considered exceptions to the rule, and offer no criterion to establish even a theory.

We may suppose, then, from these premises, that heredity has little or nothing to do in causing the immediate and direct development of tuberculosis in offspring.

But what of its influence over the physical resistance of offspring born of consumptives? What part does it play in imprinting on or withdrawing from the structure of beings the unknown quantity or quality by which immunity more or less complete is secured?

It were too great a task to undertake the discussion of the great problems involved in these momentous propositions. I will content myself with some brief suggestions, based on some researches in the archives of the various Congresses of Tuberculosis, and on some observations. I have in mind a family in which, for three generations, tuberculosis has affected a large majority. Three generations back all of the children of father and mother tubercular died from the disease between the age of thirteen and thirty-five. Some of them had children. This next generation nearly half of the children died of the disease before the age of forty, and the third, two children thirty and forty, born of a tubercular mother, are

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well, and their children from two to twenty years have escaped. All are robust. In this instance there seems to have been a gradual decrease of tuberculosis in spite of family relationship and in ratio with the advancement of sanitary science which was purposely brought to bear with the last generation for a number of years in one of the families.

On the other hand, tuberculous parents occasionally give issue to children whose physique is an abject picture of malnutrition, ill formation and subject to pathologic developments of a scrofulous nature. Is that the result of tubercular inheritance? Is it not as much the consequence of starvation in the utero, and after birth by reason of the mother's depleted system, as it is from inherited influences? You may say that such a conclusion could not apply in similarly affected children born of a healthy mother and tuberculous farther. This is open to contest. In any event, let me remark that the latter instances are rare indeed. Given a healthful mother, the child is usually vigorous; if not, the cause may be found elsewhere than in the tubercular influence, though we may admit, with some reason, that the male germinal cell carries such mysterious and wonderful potentialities that its influence may go far in impressing the cellular evolution of the offspring nefariously even to the adult stage.

This brings us to the problem of the part played by heredity on "impressing on or withdrawing" from the structure the elements that contribute to inherited immunity,

In a former discussion I took the ground that one must seek deeply into the intimate structure of cell life to find the basis of immunity—viz: the protoplasm in which resides the very essence of vital forces. Likewise must we delve deep down into the same mysterious matter to discover the basis of direct heredity, whether normal or morbid. If this proposition is well founded, what may we expect to find of a tubercular nature in this protoplasm? Shall it be that quantity and quality mentioned before, by virtue of which immunity is secured, or shall it be a principle of malign influence that may tend to develop tuberculosis directly, or causing failure of physical resistance in the individual; or shall it be both of these balancing each other, or leaving the balance of power on one side of the scale for good or for bad? What reply can we give to these questions?

If we grant that immunity can be secured in individuals by toxins or anti-toxins or chemical processes acting in the structure of the organization, we are forced to the conclusion that we should expect tuberculous parents (in successive generations at least) to establish a sort of tolerance to the disease, and that heredity should transmit the principles thereof to their offsprings. Consequently, one might argue that in the course of time heredity plays the role of protector of human structure, and not that of destructor.

It is on such a foundation, gentlemen, that serotherapy and the toxin treatment in tuberculosis have been established. Both systems are imperfect, but both have a scientific basis, both are worthy of more thoughtful and more serious consideration aside from that sort of professional commercialsim which forces them forward constantly as almost infallible specifics. Of this question, however, I will not speak farther here. I will conclude by arguing that 'twere greatly to the practical advantage of the medical profession and of the people at large to study the problems of heredity daily in the course of our professional duties. A better understanding of its laws will guide us to the advantage of mankind in our efforts to prevent and cure the white plague. It would assist us in understanding the rationale of specific medication and in the search for and application of new remedies for the most destructive of human infections.

DISCUSSION.

Dr. James Sawyer.—Only a few days since, in reading one of the numbers of the Medical Record, I saw an instance where some German doctor had met, in his own practice, with eleven cases of direct tuberculosis through the uterus to the child. The child had the disease in each instance and died a few days afterwards, and in the lungs were found the tubercular bacilli. My own thinking was against that. My idea was much in accord with Dr. Paquin's. This is something that ought to be noted. Of course very few of us believe that direct pulmonary tuberculosis can be transmitted from the mother or father to the child; it is only the tendency to the disease. We transmit weakened constitution, the power of resistance is lessened, and the child is less able to resist the infection of the bacilli, and the consequence is if the child is placed under unfavorable circumstances he develops the disease. This is especially noticable in case the mother has the disease. The mother is around the house more, is more with the child, and more liable to infect the house and the child. The father is away from the house most of

the time, and is not brought in such close contact.

Dr. J. H. Williams.—I cannot say, as we very frequently say in papers of this sort, that it is an excellent paper and covers the whole ground. I must say that I disagree with the doctor totally and absolutely. The doctor's professional treatment and his pathological studies may have led him up to the conclusion which he has reached. However, I can only say that I do think with the doctor that the wish is father to the thought, and that it is not absolutely a conclusion brought to his mind bo pathological reasoning, but the hope that these things are so. We all know that the peculiar mental and physical characteristics of the father are transmitted to the child. He has the same walk, the same movements, the same cast of features, the same fault, and so frequently it is said—why, he is simply a picture of his father. On the other hand the tendency to disease, the tendency to tuberculosis is more apt to be transmitted, I think, by the mother, simply from the fact that the child is in such direct contact with the circulation of the mother that if the tubercular bacilli is circulated in the blood, that the child is likely to be infected in that way. We all know and have seen time and time again, in children who are born of tubercular mothers, within weeks or months of their birth, evidences, signs and symptoms of tubercular infection, tubercular meningitis. We find the glands of the body and in the neck enlarged and hardened, and infected with tuberculosis. That it is impossible to transmit a tendency to disease or disease itself from the father or mother to the child is as simple as to say that the visage of the mother or father, their peculiar mental characteristics, the form and shape and habits are not transmitted from the father or the mother to the child, and I think the doctor is simply arguing against his own convictions in the matter. I cannot take it that the doctor will think the same in a month from to-day that he thinks now. He has been working on this line, he has been trying to convince himself of the fact, and I believe that in his own mind will come the proof of the fallacy of the arguments he has presented to us to-night. I should like an opportunity to review carefully the doctor's article in print, that I might carefully study it, and would like an opportunity to reply to it more at length and in a more careful manner.

Dr. A. M. Ballard.—I would like to express my entire belief and approval in what Dr. Williams has said. Everything that pertains to the physical nature is hereditary or may be hereditary. It is generally supposed that it may skip one generation and appear in the second, then skip and appear in the fourth and fifth. The concensus of opinion in the medical profession to-day is that tuberculosis is uot hereditary. That statement is accepted without much thought. What is the disease? Could not this tendency be considered the disease? That is the way I view it. That tendency is nothing but the latent disease, waiting for the hour to strike when something will depreciate the health, some exciting cause will happen to wake that latent tendency and develop the disease.

Dr. Chapman.—I have enjoyed the paper very much. I think it is the general concensus of opinion that while tuberculosis is not directly hereditary there is a direct hereditary tendency, or in other words that the children of tubercular parents, especially of tubercular mothers, furnish an extra good ground for the development of tubercular infection. Children who are raised in tubercular homes, and I think there are more tubercular homes than we generally consider, are exposed to infection at an early age, and at an age when all infection is very acute. I think the general concensus of opinion is that something resides in that cell which makes it non-resistant to that infection, but there are others who claim that all these diseases have a tendency to run out. Among the negroes and Malays, and some of the South Sea Islands, tuberculosis never existed, but since it has been introduced by white men these races die very rapidly, and from a virulent tuberculosis. I think the bulk of the proof is in favor of direct hereditary predisposition, but there are other arguments which prove in favor of what Dr. Paquin has said to-night. It is an open question, and I think the preponderance of evidence is towards the old theory.

Dr. C. V. Reynolds.—This certainly is an important question, and one which should be studied carefully. When such great authorities as Loomis and Oswold and some general authorities, say that out of 15,000 calves taken from cows there were found in 15 of these calves tuberculosis, and that out of 16,000 women who had tuberculosis and had died, in their offspring were only found four tubercular fœtus, it seems to me that so far as the human race is concerned this is a great thing in favor of hereditary predisposition, and not that the child is born with tuberculosis. If the child developed tuberculosis while in the utero there would certainly be found more well developed cases of tuberculosis. It is stated that a great number of tubercular

children develop tuberculosis in the first three or four months after childbirth, and this was one of the arguments that the child did develop tuberculosis while in the utero, the virus was present and developed after the child was born. But it is claimed that tubercular cows through the milk will produce tuberculosis, and it seems to me it is just as rational to believe that the milk of the mother would develop tuberculosis, if the child did not have it at birth. I do not know anything about it. It is an open question, but I believe in Dr. Paquin's method to a certain extent. I do not believe in immunizing, but I believe we only have a hereditary predisposition, and that no tuberculosis develops in the utero, though there are exceptions to all rules.

Dr. Jas. Sawyer.—In a case that came under my attention from Pittsburg, the father took tuberculosis at 27 years of age and died at 30. The mother did the same thing. She was a year or two younger. They left four children. One of the girls took tuberculosis at 26 and died at 28; the second took it at 26 and died at 28; the third took it at 25 and died at 27, and now the fourth child is taking it at 25, and she expects to die at 27. I would like to know whether that is hereditary, or what it is.

Dr. J. A. Burroughs.—I beg to differ with Dr. Williams. I do approve of Dr. Paquin's suggestions in the paper, and his ideas, add I think they are germane to the present ideas of the day. They are the accepted theories by the most advanced tubercular men of to-day. The fact is hardly open for discussion whether tuberculosis is hereditary in the human being or not. It is thoroughly well settled and taught in all our colleges that tuberculosis is not hereditary, that the child when born is free from tuberculosis, but that the child born of tubercular parents does inherit that peculiar disposition, with poor physical resistance and non-resisting cell structure. They are so made up that they have not the proper blood or cell tissues to resist the infection of tuberculosis, but they do not inherit the tubercular bacilli direct, but being raised up in the house, frequently probably nursing a tubercular mother and raised in the room where the tubercular mother has given it birth the child becomes infected, and the tubercular bacilli may remain latent in the system for years and years and then develop itself under conditions when the system becomes weakened by disease or malnutrition. My impression from the observation I have had is that if a child born of tubercular parents were moved from the spot and placed under good hygienic surroundings, and their diet, clothing, hygiene and everything considered, they would be raised up strong men and women, without being infected. It is too late a day for us to discuss heredity of tuberculosis. It is a question which has long since been settled by scientific investigators.

Dr. Paquin.—In closing the discussion I can only reiterate what I have said in the paper. If Dr. Williams can find any data of a truly scientific nature upon which to base his dogmatic statements that in my case, "the wish is father to the thought," etc., I will gladly reconsider my proposition under such light as he may bring forth. I did not expect him or any one else to say that my paper is excellent—indeed it could be nothing but imperfect under the circumstances; nor could I expect any one to think it covered all the grounds, for it would necessarily take one an age to write an essay covering the grounds of the questions involved in heredity. From Dr. Williams' arguments, and their endorsement by Dr. Ballard, I take it for granted that he and his supporter have arrived at conclusions from cursory observations of the kind which come to every practitioner in his daily experience, but that neither of them have seriously considered the scientific grounds underlying the inheritance of pathognomonic conditions. I do not deny that children may exhibit very early some evidence or other of tubercular infection; my paper implies nothing of the kind; but I do mean that such occurrences are not evidence of congenital inheritance. If Dr. Williams asserts that "the fact of tubercular infection is hardly open to discussion," with the idea of asserting that inheritance of the disease is an established fact, I can only beg his consideration of the reports of the several Congresses on tuberculosis held abroad and in this land the last ten years, and the book literature on heredity in the same period. I must for the present maintain the opinions I have just uttered, but will be glad in the future to consider any criticism thereof by Dr. Williams or others after their publication. I must, however, here and now beg leave to observe to such astute thinkers and experienced physicians as my venerable critics that it is no longer strictly within the bounds of science to associate questions of physical and pathological inheritance as to the principles underlying their appearance. The facial resemblance of a child to his mother or father does not support any theory advanced that inheritance of any infectious disease occurs likewise, for the latter depends on an additional factor not existing in the former, to-wit: the *morbid living* infectious *agent*, which is absolutely separate from the organ-

ism in which it may be lodged and is no part of it in any condition.

It were a long story to decipher the various laws bearing on the subject, but it is within the bounds of reason and the reasoning of many leading thinkers, as I understand their platforms, if I may so speak, and as I interpret physiology, psychology and pathology, to beg of those who may form contrary opinions on the spur of the moment to go deeper into the underlying grounds of the problems and to study the phenomena of pathologic inheritance with due regard to truly scientific and proven data before claiming possibilities which are less liable to theoretical or physical proof than the old idea of a cut tail ewe giving birth to a short tail lamb on account of the dam's deficiency.

Typhoid Fever of Childhood.*

By Dr. T. T. Ferree, Asheboro, N. C.

Typhoid fever, says Holt, is an acute infectious disease due to a specific germ, Eberth's bacillus. My own opinion is that it is not only an acute infectious disease, but that it is also contagious, as we usually understand the nature of contagious troubles.

The bacilli are abundantly present in the intestinal discharges of the affected persons. Typhoid fever is very rare in infancy, but very common in childhood. As compared with the same disease in adults, the typhoid of childhood is characterized by its shorter duration, milder course, the infrequency of its serious complications, and its low mortality.

Etiology. I have never seen typhoid fever in a child under two years old, says Holt, and I believe it to be very rare, although undoubted cases have been reported even during the first year. Murchison records one case at six months old, and Ogle another at four and one-half months, the diagnosis being confirmed by autopsy in both instances. The medical fraternity who have given the diseases of childhood close study are agreed that typhoid in children under one year old is a rare occurrence. I have never met in my practice a case of that tender age that I could regard as exhibiting any symptoms that led me to believe that I had the trouble to deal with.

After the second year typhoid is not by any means rare, and after the fifth year of childhood it becomes frequent. Typhoid is generally contracted by drinking water or milk, as these elements contain the germs.

Epidemics have been definitely traced to infected milk.

Lesions. Typhoid in young children is so seldom fatal that opportunities for the study of the lesions have been limited. In a general way the lesions resemble those of adults, except in severity. There is an acute swelling of Peyer's patches, especially in the lower ileum and of the solitary follicles of the small intestines, and colon, which may be followed by ulceration. The spleen is generally enlarged.

Symptoms. Each case of typhoid in children has symptoms largely peculiar to itself. In some cases you will find symptoms resembling those you will in adults. The typhoid of early childhood may be characterized as a fever more often with nervous symptoms than with intestinal symptoms.

Onset. Some cases have a sudden onset with well marked symptoms, fever, prostration and vomiting, while other cases have a very insidious beginning; there will be lassitude, headache, coated tongue, anorexia, and gradual rise of temperature.

Epistaxis occurs as an early symptom rather less frequent than in adults.

Condition of the Bowels. There is diarrhea in about half the cases you meet, while the other half you will find constipation. Tympanities is generally not very common, and in some cases entirely absent. Iliac tenderness and gurgling are infrequent.

Spleen. By the end of the first week it is generally found enlarged and can be made out and recognized by palpation. Swelling of the spleen is not only an important symptom for diagnosis, but also for prognosis; its persistence always indicates that the disease is not at an end, although the temperature has become normal and a relapse should be expected.

Eruption. I do not regard the eruption in typhoid in children of very much importance only as a diagnostic indication. I have never met many cases in my treatment of typhoid in children.

Prostration. In many cases this is quite marked. The disease makes rapid inroads upon the system, and in a few days the little patient presents the appearance of one month's illness.

In other cases the patient will hardly be sick enough to stay in bed, and a little too sick to be out.

Temperature. I regard the temperature as being one of the most interesting features of the trouble. I find may peculiarities about the temperature of little typhoid patients.

*Read before the Medical Society of Randolph County.

We should study the temperature in all its phases, and always keep in mind that other conditions which may develop will have a modifying effect.

In cases with a gradual onset the typical temperature curve is one which rises steadily from two to seven days, fluctuates within the limits of one to three degrees during the second week, and steadily declines during the third week, reaching the normal on the average at the end of the third week.

The temperature is generally sub-normal at the beginning of convalescence. A secondary rise is most frequently due to errors in diet, but may develop from complications. A sudden fall indicates either perforation or intestinal hemorrhage.

Relapses very often occur and usually are shorter than the primary disease. We cannot watch our patients too close to prevent any accident.

Nervous Symptoms. As a rule these are directly proportionate to the height of the temperature. Headache and mild delirium at night accompany nearly all cases we are called upon to treat.

Pulse. This is increased in frequency, but not to the degree that is seen in most diseases of childhood with a similar elevation of temperature.

Intestinal Hemorrhage. The most frequent time for this to occur is toward the end of the second week, and I believe that slight hemorrhages occurring early in typhoid fever, have a tendency to relieve the system of its congested condition, and thereby enables the patient to more readily merge into convalescense. Holt says, of 946 collected cases, mainly from hospital reports, intestinal hemorrhage occurred in 30, or about 3 per cent. The majority of these were in children over ten years old.

Intestinal Perforation. This is more rare than hemorrhage. This accident is indicated by a sudden fall in the temperature, with collapse; usually there is vomiting, and the rapid development of tympanitis.

The reason why hemorrhage and perforation are so rare in childhood is due to the fact that the intestinal lesions are of a superficial character, and there are no deep ulcerations.

Complications and Sequelæ. We have more or less bronchitis in most of the severe cases. Pneumonia also occurs. Complications referable to the nervous system are not very frequent, but of some considerable interest.

Meningitis, while it is not a frequent occurrence, yet sometimes it does develop. Acute mania is sometimes met with. Chorea is a very frequent occurrence. Otitis is a frequent occurrence in young children, especially during the cold season. Tuberculosis of the lungs and also of the bones is a frequent result of typhoid fever.

Diagnosis. The success of the physician depends largely upon his being able to make a correct diagnosis, and in the treatment of typhoid fever in children he should not jump at conclusions, but take the symptoms as they develop, and by differentiation and exclusion, make your diagnosis, and then, till you are thoroughly convinced that you have made a mistake, stick to it.

Now let us take up the diagnostic symptoms of typhoid fever. We have a continuous fever, the eruption, tympanitis, and the enlargement of the spleen. We must be slow in saying this child or that child under three years old has typhoid fever.

The differential diagnosis is to be made from malarial fever, ileo-colitis, meningitis, tuberculosis, and from other ill-defined continuous fevers of unknown origin.

From malarial fever the diagnosis is to be made by the temperature curve, the plasmodium in the blood, and the effect of quinine. In most cases of malarial origin the temperature will touch the normal within twenty-four hours. A fever that yields readily to quinine is certainly not typhoid fever.

Ileo-Colitis is limited almost entirely to the first three years of life, and enlargement of the spleen, tympanitis, and the eruption are absent. The irregular respiration, a slow, irregular pulse, localized paralysis, and complete coma, we often have in meningitis will serve to diagnose it from typhoid fever.

General tuberculosis often resembles typhoid, and I have been very much bothered in my mind to say whether I had a case of typhoid or tuberculosis on hand till the local signs of tuberculosis appeared in the lungs.

Widal's Serum Test. This consists in clumping and immobilizing of typhoid bacilli in broth cultures caused by the blood serum of a person sick with typhoid fever. I have had no personal experience with this test.

Prognosis. The mortality is very low, not over 3 or 4 per cent. Death seldom occurs from the disease itself, but from some accident or complication. The most fatal period is the third week.

Treatment. I regard this part of my paper the most important of all. I almost invariably begin my treatment by giving minute doses of mercury, combined with small doses of sub-nit. bismuth to a child five years old and under, every two or three hours, until I clean out stomach and bowels

thoroughly, and should the intestinal discharges remain of a billious nature, I persist in giving an occasional dose of calomel conbined with bicarb. soda during the illness of patient, unless my little patient becomes unduly debilitated.

I believe the typhoid bacilli are capable of living in any part of the alimentary track and as mercury is one, if not the best, intestinal antiseptics known to the medical profession, it becomes our duty to make liberal use of the drug in these conditions where an active germicide is indicated in intestinal troubles.

My experience with calomel in typhoid is that it cuts the fever short, and thereby establishes convalescense at a much earlier date. The discharges from the bowels should be thoroughly disinfected and removed from the room at once. All linens should be submitted to the same process of disinfection. The patient should be kept scrupulously clean, and give the patient plenty of cold water to drink if it does not disturb the stomach. I usually, the first few days, give some small doses of quinine. About the second or third day put your patient on aromat. sul. acid, to be given every four hours in sweetened water. A child five years old can take from three to five drops every four hours. Should the discharges from the bowels exceed four or five per day, give good sized doses of sub. nit. bismuth combined with small doses of Dover's powder. If the fever becomes high, and the skin hot and dry, give small doses of antifebrine, and watch the effect. To keep down excessive temperature sponge the patient either with tepid or cold water. If the nervous system becomes very much involved, then use bromide of potash liberally till symptoms subside.

If patient becomes restless and delirious at night, give a small dose or so of phenacetine or papine, either one, I think. will have the effect to quiet patient and produce refreshing sleep.

When the bowels become tender and tympanitic, use light hot poultices made of wheat bran. Also, use turpentine stupes. The diet for our little typhoid patients is a very important element in his treatment. Sweet milk, given in proper quantities every two or three hours, especially should there be any tendency to diarrhœa, as sweet milk is binding in its nature. Fresh butter-milk, in cases of constipation, is well indicated, as butter milk is laxative in its nature. Should indigestion occur, give less food for a few hours and give plenty of hot water, Should stimulants be indicated give strychnine every four or five hours, and govern dose by age of child.

Treat symptoms as they occur, and let patience have her perfect work, and you will be successful in bringing your patient to shore.

The Treatment of Pulmonary Tuberculosis by the Inhalation of Antiseptic Nebulæ.*

By Homer M. Thomas, A. M., M. D.. Chicago.

At the Louisville, Ky., meeting of the Mississippi Valley Medical Association I had the privilege of presenting microscopical proofs of the penetrability of vaporized medicaments into the pulmonary alveoli. Previous to that time all textbooks on this subject stated that it was impossible for nebulæ to reach beyond the smaller bronchial tubes. A demonstration of the fact that nebulæ *do* reach the pulmonary alveoli raises the question of their efficacy in the treatment of pulmonary phthisis. Work demonstrating the value of this form of medication in the treatment of pulmonary tuberculosis has been going steadily on until the present time.

It is the purpose of this address to present such clinical facts as have been obtained through the use of this special form of medication in the treatment of pulmonary phthisis. There is no specific treatment of this disease. Cures are reported upon every hand through the media of many agencies. The disease being a complex one in its varied manifestations each case should be treated upon such special lines as are individually indicated. The basis of all successful treatment is in the maintenance of nutrition. As a corollary to this is the influence of selected climate, judicious exercise, rest, baths, internal medication and all other collateral agencies which stimulate vital resistance.

Having surrounded each case with the essential conditions for repair of the pulmonary lesion, what relation does the inhalation of antiseptic nebulæ bear in the role of cure?

The answer to this query involves a consideration of the pathological basis upon which nebulization of antiseptic medication rests. It is proven beyond doubt that these nebulæ penetrate through the ramifications of the respiratory tract wherever it is possible for air to go. The first question to determine then, is whether the medicament can reach the origin of the disease. The

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second problem is, will it prove effective when the origin of the disease has been reached?

The air vesicle route is the rational one since tubercle bacilli are discharged through the air and are found in the sputum. The absence of general infection in curable cases shows that the possibility of connection with blood vessels is not large. All inflammatory areas are areas in which the mechanism of extra vesicular interchange is materially interfered with. Large numbers of tubercle bacilli are discharged by the air vesicles. Few get into the blood or lymph current; therefore the air vesicles must be in closer touch with the tubercle bacilli. The presence of large quantities of pigment from the air around tubercular areas shows that considerable absorption through the lymphatics from air vesicles is possible. A nebulized antiseptic having reached the area beyond the limit of current finds a greater probability of falling on the epithelial covering and of being absorbed from it than if it reached only to a zone of current, for in such an extra current area no force is operating save gravity. On reaching an extra current zone nebulized antiseptics fall on squamous epithelium and encounter active phagocytic cells. In a zone of current they fall on ciliated epithelium and are wafted to the outside. These mechanical laws hold good whether the foreign body be tubercle bacilli, dust, or oils in suspension.

Since this is true of healthy lungs, is it true when we speak of tubercular lungs? Nebulized antiseptics suspended in the air will reach the cavities and air vesicles of tubercular lungs just as well as if these lungs were healthy. But where there are considerable zones in which the air vesicles are obliterated these areas are necessarily very difficult to approach from the side of the air vesicle. Oil globules falling in the air vesicles of the neighborhood are picked up by the phagocytes, absorbed, and finding their way into the lymph and into the blood reach these masses of tubercular overgrowth with as much readiness as they can be reached in any other way. It is true that the presence of large areas without air makes success through air routes very difficult. Admitting that encapsulated tubercular foci cannot be reached by nebulized medicaments, is there any known therapeutic agent which can reach them? None that I know of. Nature has walled off these encapsulated tubercular foci by connective tissue barriers and in that way makes an effort to effect a cure. It therefore follows that the most rational way to treat locally these tubercular encapsulated foci is to attempt to render antiseptic their contiguous areas.

The pathologic conditions we have to deal with are those of lowered vital resistance in the lung tissue; development of tubercle bacilli; hyperplasia of fixed cells; formation of epithelioid cells; development of knot-like foci where the tubercular bacilli multiply; giant cell formation in which there is no new capillary formation; inflammation; degeneration of the blood vessels, lymphatics and air passages. In these areas, leucocytosis, further retrograde changes mixed and secondary infection.

That antiseptic nebulæ have a beneficial influence on the parts of the lung they reach there is no doubt. In such places the laws of osmosis and dialysis unite to aid in the prevention of new invasion. That these antiseptic nebulæ do not reach the encapsulated areas is no argument against the efficacy of this method of treatment, for neither can these areas be reached through the blood nor the lymphatics, by antitoxins or any method of hemotherapy, for no blood vessels or lymphatics reach these walled off foci. Therefore our therapeutic resources are confined to persistent efforts toward preventing an extension of the tubercular processes.

What is the scope of nebulization? 1. Control of cough. 2. Relief of dyspnea. 3. Intimate contact of antiseptic nebulæ upon 1400 square feet of respiratory surface. 4. Inhibition to the extension of tubercular foci.

The advantage of controlling cough by inhalation rather than internal medication is self-evident. By bringing to the inflammatory areas through direct contact specially adapted formlæ of expectorant or anodyne combinations, you allay many or all of the distressing symptoms from cough.

The relief of dyspnea incident to the blocking of the larger or smaller tubes by catarrhal products is often marked. By means of expectorant types of nebulæ this as a rule is readily accomplished.

To properly use the antiseptic nebulæ in the treatment of pulmonary phthisis it is essential that an abundance of compressed air be supplied at a steady pressure of from 15 to 30 pounds to the square inch. The air should pass through a series of antiseptic chambers which entirely free it from all impurities. When it is purified and then compressed a final measure of purification should be given by its passage through the oil of cloves. In cold weather it is better that the air be heated to a temperature of 60 deg. to 70 deg. F. before using for the purpose of producing nebulæ. Given an abundance of air that is properly prepared

for use, a well devised and constructed nebulizer is placed at a point convenient for the patient's use. Into this nebulizer a variety of formulæ can be used; the selection of the special combination suited to each case will depend largely upon one's experience in the use of this form of medication, and from a close study of the physical findings in the chest of each patient. Where it is desired to relieve cough a mixture containing the tr. of stillingia and beechwood creosote, with lavolin as a base, is quite often efficient. For the relief of the dyspnea which so often arises from a catarrhal blocking of the tubes, both large and small. expectorant combinations with carbonate of ammonia, syrup of scillæ, syrup of pruni virginæ, with lavolin as a base, often gives marked relief. Should the case be one in which there are specially urgent symptoms to relieve, and where there is general toxemia from the disease, recourse should be had to the use of the well-known and tried antiseptics. Nebulization of eucalyptus, oil of cloves and beechwood creosote have been often effective. A mixture of 10 per cent. iodoform in solution with sulphuric ether and lavolin has been found very valuable. Frequently the use of pure Ceylon cinnamon oil in solution with lavolin as a base, in a preparation of about 10 per cent., is an excellent stimulant for the bronchial mucous membrane.

Whilst all of the foregoing are standard antiseptics and have their range of usefulness in individual cases, it has been found that they do not inhibit the growth of culture media, hence nothing pathologically curative can be claimed for any of them. They are useful more for the relief of symptomatic conditions than for curative results. We have, however, at our command one antiseptic, a powerful germicide, from which there is reason to feel hopeful that valuable results will be secured in cases of pulmonary phthisis. This antiseptic is formalin. It has been found by experiment that culture media placed in an atmosphere saturated with a respirable solution of formalin are markedly inhibited and in some cases entirely arrested in their development. With this fact upon which to estimate the antiseptic value of formalin we feel justified in claiming it to be our most valuable remedy in the treatment of pulmonary tuberculosis by inhalation.

In using formalin I begin with a 4 per cent. solution of the 40 per cent. aqueous commercial solution in water. This is placed in the nebulizer and violently agitated by means of compressed air. I do not nebulize this solution but favor evolution of the gas through a mechanical mixture and agitation due to the pressure of compressed air. In a short time cases develop and acquire an increasing tolerance for the formalin mixture and by degrees its strength can be increased from 4 per cent. up to 20 per cent. One invariable rule should be observed in the use of this therapeutic agent, and it applies with equal force to those previously mentioned, to instantly cease their administration as soon as cough ensues. By pursuing this plan the tolerance of the patient is readily secured and the time in which nebulization can be administered correspondingly lengthened.

There has within a year been established in this county a hospital devoted exclusively to the treatment of consumptives. This building is completely equipped with chemically pure compressed air, abundantly distributed, and the treatment of pulmonary phthisis by nebulization is there extensively used. I have records of a number of cases treated there since the 21st day of February, 1899, and desire to call your attention to some of the results secured from the treatment. All of the cases were in the second and third stages of phthisis. They numbered 50, all mules. Of these we have a gain in weight among 15 of the 50, averaging from 2 pounds to 12 pounds; a loss in weight among 30, and in 5 cases there was neither loss nor gain in weight. When we reflect that the patients coming to this institution were in the worst possible condition of general health, all suffering from advanced tubercular processes in their lungs, that the food supplied is of poor quality, and in every case inadequate to the proper nourishment of the patients, I feel that the showing made in the short time elapsing from February 21st to August 15th, 1899, is a very creditable one. I am quite aware of the inaccuracies that statistical statements may lead one into; I also appreciate the errors of deduction that one may easily make from such a general aggregation of cases, but I feel warranted in asserting that a very large proportion of the improvement, 40 per cent. obtained in the number of cases enumerated has come from the persistent saturation of their respiratory passages with antiseptic nebulæ.

As far as the work has progressed it certainly opens up a vista of therapeutic possibilities. As I have already stated, a lung with a tubercular process shows an immense amount of newly formed connective tissue. This is an effort on the part of nature to wall off the pathological process. If nature is successful there is nothing left but scar tissue, the tubercular process is inclosed and the patient recovers. If nature does not succeed secondary mixed infection takes

place, we have sepsis, and the patient dies. There is only one cure, that is by walling off the tubercular process by embryonal tissue. In my experience I am led to conclude that medicated vapors are of great value in favoring such a process. Nebulization always did and always will occupy a secondary place in the treatment of this disease; its function is that of a supportive role rather than the development of curative properties *per se*. We should remember that in advancing infection with the tubercular bacillus it is the vital resistance of the cells and the possibility of the reproduction of embryonal tissue which we must strive to secure. How much any treatment assists these processes it is difficult to say, but only along the lines of such assistance can success be reached. The treatment is not necessarily an effort toward the extermination of tubercular germs but the stimulation of the cellular structures of the system by which the patient may resist invasion of the germs as well as the toxins which are manufactured and thrown out by the germs themselves.

There are many mechanical methods for the introduction of antiseptic nebulæ into the respiratory passages. A double glass tube so constructed as to occlude the anterior nares will enable the patient to inspire freely through the nasal passages. The nebulæ can be admitted by a single glass tube held between the lips slightly compressed, and inhalation will take place through the mouth as well as an admixture of atmospheric air through the nares. The preferable method is the use of a pure gum rubber funnel top, such as is used for lavage of the stomach. This funnel top is readily adjusted to all the irregularities of the facial contour and very little of the nebulæ escapes during its use. With this contrivance deep inspiratory efforts can be made simultaneously through the nares as well as the oral opening. The period of deep inhalation should be regulated by the easy tolerance of the patient to the nebulized medicament. Cough is the only warning sign which should cause us to desist for a greater or shorter length of time in the use of the nebulæ. With increasing use on the part of the patient, the time of contact of the medicament with the respiratory passages can be greatly lengthened. Again, the nebulæ can be respired directly from the exit opening of the nebulizer. This is a good way for those commencing the treatment, as the larger admixture of atmospheric air renders the deep inhalation of the nebulæ less irritant.

As a supersaturation of the respiratory passages with this nebulæ is the desiderata aimed at, the whole atmosphere of the room in which the patient is placed should be completely filled. Under these conditions every respiratory effort carries into the lungs a greater or less amount of nebulized medicament. So complete is the supersaturation attained that the expectoration of tubercular patients often has the characteristic odor of the medicament nebulized. The perspiration from the skin will also have this odor, and the ammoniacal odor of the urine is frequently lost in the characteristic smell of the nebulized medicament.

The adaptability of this form of treatment for individual use of patients in their homes is very wide. A great deal of mechanical ingenuity has been shown in efforts made to easily produce a large volume of compressed air for nebulization. Beginning with the small hand bulb nebulization is only secured in a very inefficient and interrupted way. Passing from that primitive form up to the use of pumps, an almost infinite variety of mechanism has been devised. There is the hand pump, which is tiresome and at best can only be operated for a comparatively short time. Then there has been an effort made to reduplicate power by means of long lever pumps, rotary and circular. The most feasible and practicable means of obtaining compressed air for nsbulization in localities where there is water supply to the homes is in the use of the mechanism known as a compound pump. This pump is cylindrical in form. The water enters at the bottom and through a system of valves the pressure of the water operating upon the valves efficiently compresses the air and forces it out through the opening from which it is conveyed into the reservoir for use. The usual water pressure is from 16 to 25 pounds to the square inch. By the use of compound pumps the pressure may be increased to 35 or 40 pounds.

Should it be desired to take up nebulization to a considerable degree for the treatment of phthisical cases at home facilities for the easy entrance of air into the pump are necessary. One of the first points to remember is to take the air from the highest point possible in the vicinity of the home so as to get it as free from surface contamination, odors and gases as possible. In order to do this, after the piping has been placed at the highest point there is put at the outer end, two or three screens varying in increasing fineness, so that the air is mechanically filtered through the screens, preventing the ingress of any dust or solid impurities with the air. When the air is mechanically filtered and compressed there should be placed an antiseptic chamber for the purpose of holding in suspension some antiseptic oil,

as oil of cloves or oil of wintergreen. After this purification has been secured the air is then ready for piping to any portion of the home where its use is desired. The plumbing connections should be made at the point of entrance of the water to the home, preferably in the basement, for the higher you carry the pump from the basement the greater the corresponding decrease in pressure. An apparatus such as I have described can be placed for about $100.

While the inhalation of antiseptic vapor is not a specific for tuberculosis of the lungs, yet it plays an importaht role as a supporting means to other methods of treatment. There can no longer be doubt of the penetrability of properly compounded and vaporized medicaments. Their value in the treat. ment of pulmonary phthisis is largely determined by the medicament used and the amount respired. Clinical experience has proven their value. The weakness of this method of treatment lies in the therapeutic action of the medicaments at our command, rather than in the mechanics for vapor production. Chemical researches of the future, we hope, will yet bring to our aid more powerful antiseptics than those now available; powerful in their selective antagonistic action upon the pathological conditions of pulmonary phthisis, and yet harmless in their effect upon the healthy structures of the respiratory passages. We are strong in mechanism; weak in therapeutic resources.

I believe the chances of successfully coping with pulmonary phthisis are greatly enhanced by the general adoption by the profession of the inhalation method. It makes possible the creation of a sterilized atmosphere for the respiration by patients in their own homes. Too long have the profession been under the shrewd and often unscrupulous domination of those interested in the "commercialism of climate." In many instances incurable cases have been sent long distances from home, at great expense as well as bodily discomfort, allured by false hopes of the climatic cure of phthisis. Prominent specialists in localities supposed to have great virtue in the cure of this disease have reaped great financial rewards from the credulous faith of the incurably sick; and when at last the fallacy of such hopes has been demonstrated the excuse is given they came "too late," and, would they die at home, must return at once. No intelligent physician can deny the value of altitude in the treatment of selected cases of phthisis, but the great rank and file of these sufferers leave the comforts of home to share the discomforts of a residence away, when their disease is equally amenable to home treatment. I plead for greater discrimination in the selection of cases that leave their home climate for often an elusive hope of benefit in other altitudes. With our more intelligent appreciation of the causative factor in the production of this disease, with the valuable curative agencies we can surround our patients with at their own firesides, and with the additional compensation that if cured at home they can forever remain there, we should use conscientious discrimination as to where and when we send our tubercular patients. While assiduously working to cure, by any means in our power, let us not neglect the broad field of the prevention of tuberculosis.

There is every probability that the absolute extinction of tuberculosis from the world is not far distant. It is inevitable that when the race becomes fully cognizant of the dangers from tuberculosis and the simple measures necessary to stamp it out of existence, they will arise and forever make this scourge a thing of the past. Most hopeful is the outlook for the accomplishment of this great result. Not alone are the masses awakening to the needs of the hour, but those in high places, even royalty itself in England, is championing the cause of race emancipation from tuberculosis. Innumerable societies are springing up in every village, hamlet and city throughout the land; prevention, like territorial expansion, is in the air, and so comprehensive is this reform in its scope that a great international conference for war on tuberculosis has recently held sessions in Berlin. Let us all do something to restrict this disease so that with the dawn of the new century we may hope to see the tuberculosis problem solved by the most humanitarian methods, thanks to the combined efforts of physicians, health officers, statesman, philanthropists, and the good will of an intelligent people.

Marshall Field Building.

What Becomes of the Medicinally Treated Cases of Appendicitis?†

By Lewis Schooler, Des Moines, Ia.

Just as long as there are papers being read advocating the medical treatment of appendicitis, it is proper to inquire what becomes of such cases—and the surgeon can perhaps give a better answer than the advocate of the medical method--for the reason that he sees some of these cases after they are medicinally cured.

First, we will consider the large number

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of cases in which the surgeon is asked to see the cases as a last resort, cases that are dead or dying at the time of the surgeon's arrival.

These are the cases where the man of the knife declines to interfere on account of the hopelessness of the case.

Certainly these cases cannot be said to have suffered at the hands of the surgeon, and the man of medicine cannot plead lack of opportunity for a fair trial of his method, for the reason that he has first promised good results with great enthusiasm; later he has not been quite so confident; in another day he advised waiting a little longer to give his method a fair chance; he has quoted to himself and his friends the long list of cases he carries in his mind that he has successfully treated without operation, and he blandly assures the friends that the patient is in a very bad way, but he has never used any other treatment and all have recovered. Soon, however, the end is apparent to the most obtuse. The explanation is, that obstruction has taken place, peritonitis has appeared, heart failure has occurred or sepsis has supervened, all of which is perfectly plain to the laity and the only individual who is befogged is he who cures all cases by the administration of drugs. If asked for proof of this, I beg to refer (by permission, of course) to every surgeon in the land. The picture is an old one to every one of them, they recognize it in the dark as well as in the light, it glows with a pale phosphorescent effulgence that is unmistakable.

There is another class that are heralded as cures, and they are not an inconsiderable number, either; they are the ones in which the golden opportunity has been lost; the surgeon has been beseeched to operate against his better judgement and as the greater portion of them must die, they are charged up to surgery, notwithstanding the patient, friends and medical attendants were apprised of the fact that it was in all probability too late, but it served the purpose of transferring it from medicine to surgery.

Certainly a great gain to medicine, and a further proof that no cases of appendicitis should be operated upon(?).

Another class of cases are those in which obstruction of the bowel occurs, sometimes very early, cases in which there is firm agglutination of loops of the small intestines. Can any one possessed of even the rudiments of a knowledge of pathology contend that the internal administration of drugs will in the slightest degree favorably influence this condition? and yet this condition is repeatedly found by every surgeon. Let the death record show obstruction of the bowels, if you please; the surgeon, however, takes a peep behind the curtain and there beholds a perforated appendix which he recognizes and every pathologist recognizes as the primary cause of the obstruction. He therefore moves to amend the record to an extent that it will show a medical failure and the true cause of death. He further desires an amendment to the effect that an early operation would have prevented such a condition of affairs or have remedied it if already present.

The rule in surgery approved by medicine and common sense, is that all foreign bodies must be removed, and nature herself insists strongly upon the observance of this rule, and yet these medical oracles continue to cry, "hands off, we cure every case with medicine." What must be the condition of the neurons in the brain of such an advocate.

A foreign body in an inflamed appendix does not differ in its manifestations from that of a foreign body in any other part of the body. By its continued irritation it produces suppuration and the tendency is escape of the pus in the direction of least resistence. The rapidity of the process which produces perforation varies in different patients, not perhaps on account of individual peculiarities, but by reason of different circumstances. The infecting material is without doubt of the greatest importance and has the greatest influence upon the prognosis.

This factor seems not to enter into the calculation of those who depend upon medicines. The routine is the same. Substances that perforate and at the time of operation are found partly within and partly without. In an experience no greater than my own, I have found a pin, a nut shell, grape seeds and a bristle from a clothes or hair brush. What drug in the pharmacopea manifests such a preference for the appendix that it will remove pins with the point projecting through the wall? Such a proposition is not only absurd, but ridiculous. The proper place for alimentary substances, is within the intestinal canal, yet we have seen a perforation at the base of the appendix sufficiently large to permit the escape of practically all of the bowel contents and at the time of operation such escape was observable not only to the operator, but to all the assistants. Such patients have been known to recover after operation. Can the non-operators demonstrate such results? Certainly not.

These cases are, I am convinced, treated as cases of peritonitis, typhoid fever with death during the first week, or any other

disease producing death within a few days.

Appendicitis cases may be divided into several groups perhaps with some advantage to this discussion. The above mentioned groups are the ones that die in the hands of the advocates of medicinal methods. They are the ones which produce such faulty recollections in the minds of medicinal men. To such an extent is this the case that they are entirely forgotten when they come to make up their records. The assistants of a surgeon would be of great advantage to them in compiling these statistics. The last to which I shall call attention is the one which does not die on their hands. It is made up of the numerous cases that have recurrences. All of you know them. They are the ones that many surgeons refuse to operate upon until the subsidence of the acute symptoms or just after the occurrence of an attack and consequently before the onset of another. Not that the surgeon believes that medicine produces any particular effect, but that he knows the attack is not serious enough to endanger life. He therefore waits for the most favorable opportunity to operate, a time in which there is but little danger to the patient. Some of these patients may have recovered from a number of these attacks under medical treatment, or under no treatment, but I have seen very few who were desirous of being cured very often by such means. They usually become very tired of the many cures of this character and find their way to the surgeon's office, where they expect to be cured but once. Some of these, however, halt between two opinions and die in the last attack, an attack that could have been avoided by timely surgical interference. Those who make up this class are calculated to swell the statistics of medical reports immensely, many of them having several mild attacks and only when they find themselves growing progressively worse, do they loose their aversion to more certain methods. While I believe that to-day there is a greater field and better opportunities in internal medicine than in any other, and in no way would I discourage its most strenous advocates, I am convinced that in appendicitis its limits are well marked and quickly reached, and that the fog and smoke that has been blown around these cases by gentlemen who enjoy practices by reason of having seen a few favorable terminations, is now in a fair way to be cleared up by those who have had the opportunity, not only to see a large number of cases, but to study the pathology of the disease in both the living and the dead subject.

When we consider that a man with a clientele of two thousand people, may only see from one to four cases annually and many of them mild cases, it is certainly not begging the question to say that the number is too few from which to gather statistics.

Again, many of these pass from individual observation after the first attack. Certainly a case should not be reported as cured when treated medically, until two years have elapsed after the last attack. Recurring cases should not be reported as cured nor should chronic cases be placed in the category, simply for the reason that they are out of bed a greater portion of the time. Most of these find their way into the hands of the surgeon, sooner or later; certainly a thing they would not do if they were cured as claimed by the advocates of non-operative methods.

It is not my purpose to reflect upon the honesty or integrity of those who devote themselves to the treatment of disease by the administration of drugs. I am willing to concede to them the same honesty that I accord to my fellow-surgeons, and in this discussion of one of the most important diseases, I predict that the hard facts as disclosed by greater observation and the increased experience of medical practitioners will inevitably show that the present position occupied by them is untenable.

In conclusion, then, patients who are treated by means of medicine only, either die under such treatment, or are later cured by operation. To the above there should be noted a single exception, viz: Those cases which are spontaneously cured. This occurs by rupture into the bowel, vagina, bladder or externally.

Instances of this method of cure are familiar to all. It is therefore singular that in view of such familiar occurrence that these medical gentlemen do not take the hint that nature is so persistently urging upon them and comprehend more clearly the fact that removal of the offending cause—organ and product—is the only rational procedure. It is the only one that is approved by nature, pathology, observation and science.

Value of Prostatic Examination†.

By J. Leland Boogher, M.D.; Professor Genito-Urinary Diseases, Barnes Medical College, St. Louis, Mo., Phisycian to Methodist Orphans' Home, etc.

From the number of cases that have come

†Read before the Mississippi Valley Medical Association, at Chicago, Ill., October, 1899.

under my observation during the last few years where prostatic examination had been entirely overlooked by many able physicians, I have been emboldened to present this paper to you, feeling deeply as I do its unlimited importance, not only from a genito urinary standpoint, but the serious general effects resulting from prostatic derangement, which symptoms are often referable by the patient to other portions of the body, and will attempt to present a few cases of different kinds, having selected cases most prominent in each class.

The prostate as a gland has been so thoroughly written of of late that I will not attempt to go into any description of the gland. I know that in the medical profession in general there is no feeling of eclat connected with the prostatic examination. I know the delicacy many refined physicians feel in inserting their finger into the rectum, but as there are many things in medicine that are absolutely essential, notwithstanding the sentimental objections many have at their undertaking, I think a physician should never consider for a moment his own repugnance where an examination of the prostate is necessary.

Mr. J. G. C., aged 48, a man of large business responsibilities, was sent to me by a masseur, from whom he had been taking a course of massage in the hope of relieving an excessive case of lumbago, from which he had been suffering for some time past. Having applied to a number of physicians for relief, and having received none, he had about given up the effort. He was in the best of health in appearance, and the only complaints he made were of the great pain in his back and a great mental apathy that had been coming over him, as he expressed it, for two or three years, and which had grown so bad that he was not able to attend to his business for more than one or two hours consecutively without becoming very heavy and dull, and that he would sometimes go to sleep sitting at his desk; that he took no further interest in pleasure of any kind, and that his memory had begun to fail him. I learned that he had married about five years previously the second time, eight years after his first wife's death. a young woman twenty years his junior. and this mental apathy had been gradually coming on for the last three years, as had also the pain in the back. Coitus was performed at long intervals with much effort. and no pleasure, and the next day he would suffer more with his back. He was urinating three or four times during each night. Had never suffered from urethral infection.

Examination of his prostate showed a large gland, hard to the touch, and massage produced no discharge at the meatus. At the end of a week, by simply treating his prostate, he was much relieved, and at the end of six weeks he had no pain in his back and did not get up at night to urinate. Mentally he was remarkably improved, and at the end of three months he was able to attend to business as well as he ever could and his back was well and strong.

J. C. K., aged 65, merchant, applied to me fearing he had kidney trouble because he had to urinate so frequently, especially at night. Examinations of specimens of urine revealed nothing abnormal, but an examination of his prostate showed a large, firm gland, which, on massage, gave him pain at the end of penis, but produced no drop at meatus. He had, off and on, had pain in his back, but not so severe he could not stand it, but had never had an infection of the urethrea and had long since given up coitus. Treatment of the prostate in two months relieved his frequent urination, strengthened his back and caused his desire for coitus to return, which, at last accounts, he was continuing to enjoy and was feeling strong mentally and physically.

Mr. J. S. G., aged 53, single, a retired merchant, applied for relief from a bladder affection, from which he had suffered for some years, having been unable to retain his urine for any length of time, and it giving him much pain to stop and start the flow. On questionng him I learned that he had suffered several times in earlier life from gonorrhœa, and often it was several months before the acute symptoms would subside, and that he always had a weak back.

On examination of his prostate, I found it mushy to the touch, and on massage, there was quite a discharge of thick, white secretion filled with many plugs of whiter material, which, on examination, showed a mixed infection. During the examination the patient fainted away, which, in severe cases, is often the result. On asking him whether sounds had ever been passed on him, he answered, as they usually do, that they had been used on him, and they had been given him to use on himself, which he had often done.

After treating his prostate, and later on his anterior urethrea, he was entirely well at the end of five months, and all this without the use of sounds. He is now like a new man and contemplates matrimony, whereas, previously, an erection was a horror to him.

Mr. A. L. T., aged 31 years, married, a fireman and ex-professional base-ball player,

desired relief from gonorrhœa and stated that he was unlucky enough to be always catching this peculiar cold. He had had attacks of rheumatism in his knee and back so much that he had to give up playing ball. Examination of the prostate revealed a large, soggy gland, secretion from which on examination showed cocci in large numbers. The fact was that his prostate had been a constant source of inoculation to his anterior urethra on the glands being subjected to excitation, either from coitus or intoxicants. Sounds had often been used on him. He was easily cured and has returned to professional base-ball work, which, I learn, he is playing better than ever.

I have had quite a large number of young men apply to me to learn if they were well of gonorrhœa, as they wished to get married, and on examination of the prostate and its secretion, in the majority of instances, it was revealed that they were still able to transmit gonorrhœa. One flagrant case of error made by a prominent G. U. S. was revealed to me by a patient, Mr. H. W. C., Jr., who applied for relief from prostatic gonorrhœa, and in confidence told me that he had been assured by the physician who had treated him three months before that he was entirely well, and that the tripper faden in his urine amounted to nothing and he could get married, which he had done and had inoculated his wife with gonorrhœa, and she had transferred it innocently to her eyes, and she will be a sufferer possibly for life because the previous attending physician had failed to examine his prostate and its secretion.

I have had some cases of degenerated gonorrhœa in married women where I have had their husbands call, and it has always taken much persuasion on my part, there always being protestations and declarations from them of their never having been infected; yet, nevertheless and notwithstanding, examinations of their prostates would reveal infection. One of these cases is worth mentioning, the couple having been married several years and never having had children, but since treating him they have had one child and soon expect another.

In cases of sterility the man's prostate should always be examined, as it is a good rule to believe it is generally trouble with the husband.

The first two cases, from the symptoms complained of, would, I believe, not lead many physicians to examine the prostate, and in fact, it is exceedingly seldom I ever have a case where there has been previous treatment that there has been prostatic examination made, and I have found that it was always necessary in genito urinary practice, as well as in surgical and general practice.

The fact that there had been no previous infection in these cases, as often occurs, did not obviate the necessity of prostatic examination, and the improved mental vigor of these cases on treatment of the prostate, (which is a result often secured) is especially to be noted.

I do not think the profession sufficiently realizes the close relation existing between the prostate and the brain, and how much pathological conditions in the prostate affect the mental integrity and will-power of man. I have not had as yet, a sufficient number of patients beyond the age of fifty-five to make my results valuable, but in the seven men beyond that age, the oldest having been eighty-four, that I have treated, there has been a markedly increased mental strength, and I now expect a general improvement in every severe case of prostatic trouble that I am called upon to treat.

The number of cases of supposed lumbago that are cured by treating the prostate has been a surprise to me, as the weak back seems to improve immediately as the prostate improves under treatment, and I believe that as in the female the pain in the small of the back is often dependent on the uterine versions, so in the male the prostate should be interrogated in all cases of back ache. The frequency of urination in patients of various ages where small quantities of urine are passed at a time, is also relieved, in the majority of instances, by treating the prostate and in these conditions should always be examined.

In the severest cases of infected prostates whcih I havs had to deal, there had been previous treatment of the urethral tract with steel sounds, and it seems to be popular with some physicians to give sounds to patients to pass on themselves.

I wish to state to the Mississippi Valley Medical Association that I am diametrically opposed to the use of the souud in the treatment in either gonorrhœa or strictural conditions. A sound should never be used to dilate the anterior urethra where such sound will reach the posterior urethra, which portion of the urethra has not been involved and does not need treatment, and therefore should be respected too highly to be invaded uselessly in any way, which in most instances affects the posterior urethra. There is and can be no value in the sudden dilatation of the anterior urethra with the sound. The only practical and sensible treatment in the dilatation of the anterior urethra, which, of course, can only be used for opening up the folds of the anterior urethra that have

been stuck together by the discharge, is the use of the Kollman-Oberlander Dilator, which penetrates only as far as Cowper's gland and which can only be dilated gradually, and is so shaped that it dilates the urethra in those portions only which most need the dilatation, and does not dilate the meatus, which cannot be dilated and which is always most pressed upon by the use of the sound. I do not think the posterior urethra should ever be dilated.

I know that I will be opposed in the above views—possibly censured and criticised for what I have said regarding the popular steel sound—but I am firmly of the belief that time will show that the objections I have stated above to the sound will prove true.

Vesico-Rectal Anastomosis.†

By Jacob Frank, M D., Chicago; Surgeon to German Hospital; Consulting Surgeon and Gynæcologist of the St. Elizabeth's Hospital and Home for the Jewish Orphans, Etc.

A series of experiments have been conducted on the implantation of the ureters into the rectum, sufficient in number to justify the following conclusion, viz:

That in every instance there is an ascending infection of the ureters, which terminates in the kidney. Since this is a proven fact, as verified by both a microscopical and macroscopical study of the operated dogs, I have every reason to believe that no better result could be attained in the human being, and from this circumstance alone the implantation of one or both ureters can never become popular. Various operators have devised different methods for the relief of extrophy of the bladder, but Maydl's is to be preferred as the safest and best, because, according to his technique the uretral openings are not anatomically interfered with, hence a fortification against ascending infection.

Why should the ureters be cut away from a healthy bladder when it is possible for the viscus to be left, almost untouched, and still accomplish the desired results? As some of the lower animals and birds have the bladder and rectum as one closaca, the question arose, why cannot human beings live comfortably in the same condition? It is my object to place the unfortunate individual requiring this operation in the embryological state, by combining the bladder and rectum into one common receptacle, from which the feces and the urine pass.

For the operation which I am about to describe, I have been unable to find any literature up to date, upon this subject. However, should any gentleman present be acquainted with any literature upon vesico-rectal anastomosis, I shall be thankful to be informed of it.

The operation consists of anastomosing the bladder to the rectum with my decalcified bone coupler, a description of which can be found in the Medical Record, Oct. 3, 1896, the Journal of the American Medical Association, June 19, 1897, and in Medicine, January, 1897. The technique is as follows: In a male dog the incision is made in the groin, and in a bitch in the median line. Generally the bladder is found distended, and is emptied by squeezing it gently with the hand, when the urine escapes through the natural channel. The rectum is next picked up and freed of its contents, as in any intestinal operation. The bladder and rectum are then brought forward and placed in position for anastomosis. Two or three interrupted Lembert sutures are now taken about half an inch below the lower ends of the incisions determined upon in the bladder and rectum, care being exercised in selecting them that the coupler, when inserted, will not encroach upon the uretral openings. A longitudinal incision is then made in the bladder large enough for the coupler selected, and a puckering string applied over and over the cut margin. The rectum is then opened in its long axis and a puckering string similarly applied.

The suture should be taken so that the free ends lie uppermost, thus facilitating easy tying. The operator now slips the coupler into the bladder opening, at the same time gently spreading the collars apart, while an assistant makes one knot and draws down on the puckering string until the rubber tubing is felt; another knot is made and the ligature cut off short. The other half of the coupler is then slipped into the rectal opening and likewise tied and cut off. Several interrupted Lembert sutures are taken around the borders to make the work more secure. The operation is very simple and can be accomplished in ten or fifteen minutes.

The opportunity of trying this new method on the human being has not been afforded me to date, although it was tried on the cadaver and the technic carried out nicely. Of the 15 dogs which were operated upon, 10 recovered and 5 died. In the first two experiments the technic was not yet perfected and a great deal of

†Read at the Recent Meeting of the Mississippi Valley Medical Association.

unnecessary work was done, which undoubtedly contributed largely to the failures. As a rule the dogs are quite sick for the first few days, and show signs of pain, with rise of temperature. For a week after the operation urine and feces are voided oftener than after this period. Dogs hoist their legs as though in the act of urinating, without accomplishing anything, and finally squat down and micturate from the rectum. The animals that have been kept accustomed themselves to their condition and urinate periodically, the feces were always passed in a liquid form, being softened by the urine.

It is my opinion that vesico-rectal anastomosis will not only become popular for extrophy, but will be resorted to for other diseased conditions of the bladder, especially where a suprapubic perineal section is merely performed for temporary relief. Gentlemen, I predict that in the near future the journals will record cases of vesico-rectal anastomosis in far greater numbers than gastroenterostomy performed as a relief measure for a diseased condition of the stomach. The field for vesico-rectal anastomosis is much larger than that for gastro-enterostomy and the results of the former operation will be more permanent than those of the latter. One great advantage that the human being will have over the lower animals, is in irrgation, as the operated parts can be kept clean with antiseptic solutions at will, thus limiting the unavoidable but only temporary cystitis. Another point is that the human being is kept quiet on his back after the operation, hence feces are less liable to get into the bladder. The reverse is true in dogs. In exstrophy of the bladder the anastomosis should be made first and then the plastic operation later.

Two of the dogs which were operated about six months ago are alive, in good health and apparently as happy as other dogs that urinate through the natural channel.

The result of the microscopical and bacteriological study of vesico-rectal anastomosis is much more gratifying than that of implantation of the ureters into the rectum. The detailed account of each experiment has been omited as time would not permit the reading of it before this meeting. It will be published later, when the last dog is killed.

Dr. Maximilian Herzog, Professor of Pathology in the Chicago Policlinic, has made for me a number of post mortem examinations, including a bacteriologcial and histological study of the material obtained from several of the dogs operated upon by the above described method. He furnishes for this paper a short abstract of his detailed report as follows:

The dogs were killed by chloroform narcosis at varying intervals after the operation. The body of the animal, as soon as life was extinct, was opened by a long median incision in which the scar in the abdominal wall was avoided. The kidneys were then carefully, with as little manipulation as possible, freed and lifted out. The ureters were ligated close to the pelvis. The outside of the latter was rendered aseptic by a heated spatula, an extra strong platinum loop heated to a red hot state was then pushed into the pelvis, kept there a few seconds and withdrawn. Inoculations from the fluid and juices so obtained were made on blood serum and glycerine agar tubes, which were subsequently kept in the brood-oven. Tissues from the kidneys and the site of the anastomosis were fixed in a 4 per cent. formalin solution, or in Zenker's fluid, embedded and stained according to various methods, including of course such for demonstrating bacteria.

Dog No. 4. Operated May 6, 1899; killed May 21, 1899; four cultures made; three remained sterile. One culture tube developed a growth, evidently an accidental contamination, neither the colon bacillus nor a staphylococcus; all internal organs normal; anastomosis complete; kidney tissue normal; no evidence of inflammation or degeneration.

Dog No. 8. Dog found dead May 21, four days after the operation; internal organs normal except large struma colloidæs; macroscopic condition of kidneys, ureters and bladder does not point to a cause of death as a direct consequence of the operation.

Dog No. 9. Operated May 21, 1899; developing several days after a paraphimosis and gangrene of the penis; was found dead June 9, 1899; kidney, ureters and bladder show macroscopically no marked changes; all other internal organs normal; anastomosis complete and firm; microscopically kidneys normal except as to one point. There was found in the medullary portion of the right kidney, near the pelvis, two small foci of round cell infiltration; bacteria are not demonstrable anywhere in renal tissues.

Dog No. 13. Operated on June 1, 1899; killed June 28, 1899; two culture tubes developed colon bacilli and diplococci; kidneys and ureters macroscopically normal; anastomosis complete and firm; microscopical examination of the anastomosis shows that the intestinal epithelium has for a short distance grown over the surface of

the bladder; kidney tissues shows no appreciable histologic changes. There are, however, found a few microorganisms as follows: Right kidney, in the tissue near the surface of the pelvis, bacilli and a few diplococci; likewise in the cortex a few bacilli; left kidney in medulla and cortex, a few bacilli.

Dog No. 15. Operated on June 10, 1899, killed three months later, September 11, 1899; dog suffering from the red mange, but appeared otherwise well; right kidney and ureter normal; left kidney congested; ureter enlarged to double its normal size; anastomosis complete and firm, on one side of it are found adhesions of omentum and a loop of small intestine; culture tubes develop colon bacilli; microscopic examination of tissue shows a very intimate union at the site of anastomosis, with practically no connective tissue scar, the muscularis and that of the bladder being in the closest opposition; the tissues of both kidneys show inflammatory changes and contain colon bacilli.

A uniformly striking feature of the histologic examination in all cases is the very complete and firm union of the vesical and rectal tissues at the site of the anastomosis.

From the above it will be noted that in only one experiment, No. 15, was there any macroscopical evidence of a change from the normal. If, then, the careful microscopical work had not been carried out in my series of experiments a complete recovery could be claimed in every instance, so far as the behavior of the dog prior to the post mortem, and to the appearance of the organs at the time of the post, with but the exception noted in experiment No. 15. I again repeat, that in all my experiments of ureteral implantation an infection of the kidney resulted, and this fact led me to devise the new operation.

From all the literature which I have been able to study on the subject of ureteral implantations few contain a microscopical report, and therefore, are absolutely worthless as regards the subject of kidney infection.

From the report just finished two points will be observed: First, that the recovery of the dog and the macroscopical appearance of the tissues do not necessarily signify abscence of infection. Second, in the dogs killed thus far, the operation of vesico-rectal anastomosis can be performed without a resulting kidney infection.

17 Lincoln Ave.

Owing to the introduction of the four year course in our medical colleges the number of graduates this year has been very small.

Further Observations on the Treatment of the Abdominal Viscera Through the Colon.*

By Fenton B. Turck, M. D., Chicago, Ill.

In a previous communication it was shown that small quantities of hot water (55 C.) introduced into the rectum produced a marked effect on the heart and general circulation and especially on the abdominal organs. From these results it was evident that hot water introduced, at the temperature mentioned, into the colon had a greatly beneficial effect upon the abdominal viscera. Air hot or cold forced through a double tube into the colon and allowed to escape, also acts not only as a powerful stimulant to the abdominal viscera, but also acts as a species of pneumatic gymnastics of the colon. In the introduction of hot water into the colon, the following technique is adopted:

The patient is placed in a dorsal position upon a table specially devised for the purpose, which is so adjusted that the hips may be raised or lowered to any desired angle without discomfort. The solution employed is usually a 9 per cent. normal salt solution when therapeutic effects of heat and cold are desired. For other purposes mild antiseptic and medicated solutions may be employed. A soft rubber tube, either single or double with end and side openings, is introduced into the rectum as far as the sigmoid flexure. At first 200 to 300 cc. of water at a temperature of 50 C. is introduced. This is allowed to return through a tube into a conveniently placed receptacle and the procedure repeated. Every time the water is introduced its temperature is gradually raised until it reaches 55 C.; in all from 3 to 6 litres are needed. The patient is then allowed to evacuate the bowels. After which he receives similar short treatment with water cooled to 2 c. or 5 c. The amount of water introduced and withdrawn and the duration of the treatment depends upon the character of the case.

For continuous irrigation my double recurrent tube or needle douche has answered the purpose best in the hands of gastro-enterologists like Herschell, Treves, Gillespie, and others. By continuous irrigation a somewhat different action is obtainable from that already referred to. It is indicated in impaction, acute gastro-enteritis, and during the early stages of appendicitis. A strict observance of technique judiciously varied in each case gives the best results.

*Read before the Mississippi Valley Medical Association at Chicago, Oct. 3d. 1899.

The mucous membrane of the colon like that of the throat seems to be insensible to comparatively high temperature. The sensations within the colon as to heat or cold, are not very definite. This may in part be due to the fact that the colon sensation has been so specialized as to fecal pressure as to lose its heat and cold reaction. That the treatment through the colon influences not only the general circulation but also stimulates the nerve actions of the abdominal viscera, and even the cerebral and spinal blood pressure, has long been known. The principle on which stimulant enemata have been employed, in opium coma and allied conditions is significant evidence of this. The ano-genital center is notoriously the last to be effected in coma. Numerous instances have been reported where death from opium coma and anesthesia have been prevented by its stimulation. Furthermore, stimulation of the ganglia in the walls of the intestines, can not fail to produce effect on the spinal and cerebral centers. The increased action of kidneys, liver and other organs after the employment of colonic means, is evidence in this direction. This is further shown by the fact that favorable results depend not upon the amount of water introduced but upon the reaction between heat and cold. Large quantities of water introduced at one time are detrimental. Small quantities frequently repeated have markedly beneficial effects.

The colonic treatment by water or air, single or double recurrent tubes may be employed according to the nature of the case. A tube with a single opening at the end is useless, however, for colonic lavage. One designed by me consists of a rubber tube (1 metre long and with a calibre of 23 A or 35 F), tapered at the end to an opening with beveled edges. On either side are four small perforations opposite to each other in a row. Above this is a large side opening with edges so sunken as to prevent irritation in introducing the tube. The distance from the end of the tube to the uppermost opening is one and three-quarter inches. This tube ensures rapid return of the water injected and there is no danger of the suction of mucous membrane by siphonage. There is thus less danger of traumatism and of closure of the end of the tube by the mucous membrane or feces. This tube ensures a more equable distribution of the fluid introduced and is, therefore, of special value in topical applications or in introduction of food. The double recurrent tube or "needle douche" previously described, will be found of special value when prolonged irrigation or lavage is desired. It has been found particularly useful in obstruction from whatever cause, by Herschell and others. For the same reason it is of value in appendicitis. The sprinkler at the end has proved useful in colon atony or where hot or cold water is needed as a spray or needle douche. In some cases a tube capable of passing the sigmoid flexure may be needed. Most tubes made pass only to this flexure but not beyond. The stiff tubes press upon and so bulge the walls as to give the false impression that the tube has passed through the flexure. The flexible tubes coil up and produce the same impression. My colonic sound and irrigator enables the physician to pass around the colon even as far as the cecum. It consists of a double curved metallic tube about 16 inches in length, so made as to be passed through the sigmoid flexure. The tube not only serves as a channel for the return of fluids injected, but also as a sheath for the introduction of a flexible hollow metallic cable. The distal end of the cable is surmounted by an olive shaped perforated head. This serves as a guide for passing the sound. As the cable is hollow it may be employed for colonic distention. This is secured during the passage of the sound and will ensure further introduction. The position of the cable tip may be determined by palpation, especially if the cable be rotated. Since the cable is metallic, it can be employed as an electrode. Food by this instrument may be distributed over a wide area. Great objection frequently exists to the introduction of water, especially hot water, into the colon. The hot water produces depression and even collapses at times. Warm water is particularly objectionable in this particular. Atony of the bowels from this cause, moreover, is very frequent. Distention of the bowels with water subsequently withdrawn, would be of value in bowel gymnastics were it not for the fact that since the water is slow to return and is not compressible it causes undue distention.

In treatment of the colon the object is first, when atony exists to secure heat; second, distention; third, contraction, and peristalsis producing gymnastic exercise. For these purposes air often answers better than water. If heat be desired the air can be heated by passing it from a compressed air tank through a bottle of water heated to the required temperature before passing it into the colon. The method of treatment is useful in atony of the bowels whether it exists alone or with obstruction or impaction. Compressed air is used with a double tube introduced into the colon. When the colon is distended air is allowed to escape through the outlet tube. Air at 55 C. reaches as far as the colon. Nebulization

of the colon may be thus employed; any of the nebulizing mixtures adapted to the colon being used.

Reports of experiments and observations of medical and douche treatment through the colon were also presented.

An Injustice.

Probably no drug has been more unjustly maligned than Erythroxylon Coca. Yet no drug has really rendered more aid to therapeutics, as demonstrated in the many writings by authors, botanists and medical observers during the past century. At the time of the Incas (twelfth cenutry), long before the discovery of Peru by Pizarro (1524), Coca was in extensive use. It rendered the greatest of service as a restorative, a fortifier, a sustainer. It was entirely depended upon to insure resistance to disease, fatigue, hardships or toil. For centuries Coca proved its usefulness and merit; it so has continued, notwithstanding the systematic series of attacks instigated in the sensational press, about three years ago, by malicious persons who had special interest in endeavoring to bring Coca into disrepute, if possible to dissuade its use.

The fast-growing popularity of Coca through the untiring efforts of Mariani, of Paris, who was the first to introduce it in Europe and in America in a uniformly reliable and agreeable form, and his labor and serious work in this direction were appreciated by the medical profession.* His preparation has become a most formidable rival to the many so-called tonics, restoratives and stimulants.

When it was clearly demonstrated that Coca was vastly superior and was being adopted universally by the physician, each manufacturer hastened to add Coca in some form or another to their various mixture. While this was an admission of the value of Coca, it really injured its reputation, owing to the defective preparations produced. Unsatisfactory, even harmful results induced the profession to reject the many valueless, at times dangerous, concoctions. An active campaign was opened against Coca in the medical and daily press. Sensational articles without any basis of fact were instigated, with the dual purpose of inciting the opinion of the physician and the public against the drug, and thus prevent its use.

The Manufacturers had no knowledge of the requisite treatment and preparation of this delicate, probably most volatile of plants—in fact, were unable to procure reliable leaves, there being even a vastly greater variation than in tea. Due to aforesaid causes, the manufacturers were either compelled to or voluntarily stopped the use of Coca, thus proving again the old saying, "the survival of the fittest," as, notwithstanding the combined efforts of the many competitors and antagonists, the well-known preparation of Coca by Mariani, of Paris, France, which bears his name, is the only one which has resisted all attacks directed against Coca.

Introduced to the profession more than thirty-five years ago, it stands without an equal, and continues to be endrosed and upheld by all who subject it to thorough test. It certainly merits the attention of practitioners who for any of the aforesaid reasons may have not considered Coca in its true light, or who may have become prejudiced.

Mariani's Coca can be conscientiously recommended; its adoption into practice as an adjuvant in treatment of the innumerable cases where an absolutely reliable tonic, effective but mild stimulant is indicated, will render more assistance than any drug or medium known to therapeutics.

Its fields of usefulness will gain for Coca in the form of a reliable preparation, as great, or if possible, even a greater reputation in the future than it enjoyed at the time of the Incas.

*Mariani's latest monograph on Coca (English translation), illustrated, cloth bound, 76 pages, sent, post-paid, to any physician, on application to Mariani, 52 West 15th Street New York.

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MILITARY SANITATION.

The soldier as he answers the call of duty takes his life in his hands and delivers it over into the keeping of his country, to be exposed or to be sheltered as shall be for the good of his country as the country through its rulers and officers sees it. That the private must exercise judgement and common sense goes without saying, but all rules and regulations must be implicitly obeyed. Now fighting is not picnicing and even at a picnic one may be compelled to put up with some personal discomfort or inconvenience simply for the sake of the picnic, so during time of war the soldier should bear up bravely under many hardships inseparable from his avocation. We reckon that some of the ordinary privations of the soldier were made the subject matter of several hysterical attacks upon the Government during the last war.

We should never go to war until we are good mad and then we are not so likely to stand upon the order of our going; we don't put on a dress suit and patent-leathers to go around the corner and lick the stuffing out of the man who has grossly insulted us and so we should not be too finicky about how a war is carried on, if the enemy is everlastingly whipped.

Military sanitation during actual warfare then is summed up in the admonition, *to make it as unhealthy as possible*—for the enemy.

Military sanitation for camps which are to be occupied for any length of time is an entirely different matter. The congregating of large bodies of men as is found in the military camp calls for the exercise of the broadest and deepest sanitary laws.

The prompt detection of and careful attention to cases of infectious diseases are here even more important than in our large cities.

The disposal of sewerage and garbage must also be carefully looked after, always remembering to keep a sharp line of demarkation between the waste products of the sick and the well, in other words let the parties themselves be clearly separate, in apartments, kitchen, pantry, attendants, and all waste products.

The sanitary officer then becomes a most important one and his advice and commands should be carefully followed and obeyed.

As has been said, the soldier delivered up his life to his country when he enlisted and it becomes the plain everyday duty of his officers to shield and protect that life when its jeopardy would in no wise benefit his country. To bring it down from the plane of duty and right, it should be done as a matter of dollars and cents. The country is so much poorer for the loss of an able-bodied man and its expenses are so much increased for every brokendown and helpless soldier returned to his home. In every way it is so plainly the duty of the country, through her servants, to preserve in every possible way the health of her soldiers that it really seems idle to speak of it. Unfortunately our camp experience during 1898 would indicate that even so plain and palpable a duty may be overlooked or ignored.

Greenleaf, in the Boston Medical and Surgical Journal for November 16th, makes a comparison between the two camps located on the outskirts of San Francisco.

At one, Camp Merritt, the advice of sanitarians was seldom asked and when asked was not followed and nearly every law of health was either ignored or violated. The result was that the men were scourged with sickness and death, large numbers of them were permanently invalided, local epidemics became general and soon the entire camp was so thoroughly infected that it was of necessity abandoned.

At the other camp, the Presidio, the advice of sanitarians were sought, accepted and carried out, no pains being spared to secure as far as possible compliance with the laws of health.

The result was that there was but little sickness, only a few deaths and a few cases permanently invalided, local epidemics of contagious diseases, due to importation, were quickly controlled and did not in any case extend beyond the respective commands which brought them nor did a single case of infectious disease originate in the camp.

THE LAW IN REGARD TO CHRISTIAN SCIENCE.

It would seem that the common law of the country did not anticipate the marvel-

ous works of Mrs. Eddy and her disciples, and so there are no statutory provisions by which they may be bound up or mollified with ointment.

To make new laws which help out is hard, for law is a cumbersome thing. For when you have the dead fall all ready to pull the trigger, you find the fellow you want it to fall on is not under, and so a regular house rolling outfit is necessary to move the machine to a new place, and when you are all ready again the man steps out and you must give up in disgust.

Another very important thing is that any belief of a religious nature at all fattens and grows upon persecution and legislative restrictions. And while these so-called scientists treat sick folks straight out, collecting a fee in advance, their method is distinctly religious, and is founded upon Mrs. Eddy's misinterpretation of the Bible and so restrictions will doubtless only harden the hearts of her blind and unreasonable followers.

But something should be done, as the same arguments apply to polygamy, and surely it has been lessened somewhat at least by judicious laws, and the burden of the doing naturally falls upon the physicians of the country. The people are content to sit quietly by and do nothing except rather encourage the rankest charlatanry that the mind of man can devise. It is truthfully said that 99 out of every 100 people will believe anything concerning their health or their religion.

And so the patent medicine man grows rich and richer, but we believe his day is far spent unless signs fail. The people in times past have been satisfied with a reasonable lie, believing it heartily, but in these latter days they want something stronger and will actually believe an unreasonable lie.

Formerly quack medicines were taken only for liver complaints, female troubles and falling of the hair, now we have advanced until we take nothing but belief for such diseases as cancer, consumption, and diseases of the heart. Hence the patent medicine man is a back number, he is too realistic, gives too much sugar for a cent, and must fail unless he rises to the responsibility placed upon him.

The truth of the matter is we have been too lenient with quacks and sharp traders.

A free country has certain disadvantages, it draws to its embrace every form of greed and malice. Under the guise of philanthropy, of charity, of business enterprise, of ministering to the sick, of religious instruction, this greed and selfishness grows strong and sleek.

This Christian Science business should be set down upon hard, and, if necessary, let two men hold it in place while it is done to the Queen's taste. Let the law recognize their attempts at healing as being the practice of medicine, and let the same laws regulate their doings as regulate the acts of ordinary physicians. They evade the law by claiming that they do not practice medicine, because they give no drugs. Surely the most common lawyer in the country knows that this is simply an evasion, that the practice of medicine means the treating of disease by drugs, or without them, by proper food and clothing, by sanitation and disinfection, by surgical means, by bathing, massage and electricity, by suggestion, by nursing or by restraint.

But, by all means, if the law does not cover them (though it does) let it be spread out so that it will and then simply enforce it.

NEWSPAPER ADVERTISING.

To the average newspaper reporter everything is fish that comes to his net, and so they never stop to consider except the one matter that it is news, that it will be read with interest, that it will create a sensation, no matter is it to them if a family skeleton is displayed, a character held up to scorn, or a personal disgrace laid bare before the world. Publicity helps some things, they need an airing, but the doctor and his work are ruined by the heartless pencil of the reporter. His work is in the inner sanctuary of men's lives, professional, sacred, inviolate. The breath of publicity withers it at the first blast, and his work is polluted and disregarded, and he is dispised by his fellow workers.

A few so-called physicians (having the outward shell but not the heart) think the daily newspaper a means of growth and development, the great majority do not.

But even those who do not consider their calling honored by newspaper puffing, which at the same time puffs S. S. S. for the blood, or Slocum's fake consumption cure, have oftentimes difficulty in preventing the energetic reporter from dishonoring them among their brethren. The correspondence in this issue of the Journal. in regard to the experience of Dr. Phelps of New York, shows that oftentimes a man's most secret work must be proclaimed with the blast of a trumpet to satisfy the ambition of the modern daily to be ahead of its competitor.

Even in Charlotte we had some trouble, but at present have a most satisfactory arrangement with the proprietors of the daily papers by means of which the names of the

doctors of Charlotte are not used in connection with their professional work.

Of course the newspapers resent any interference with their legitimate work, that of collecting interesting news, but even the newspaper reporter is human, and when they understand that an injury is done the doctor's character by giving his personal connection with a flaring account of an accident case they will leave it off.

It is a matter of news that Tom Smith fell off the 14th story of the Exchange building and fractured his seven cervical vertebræ, but it is not news that Dr. Wm. Pompadour attended him and successfully wired them together with silver suture.

Newspaper men are accustomed to make faces at the Code of Ethics, comparing it to its ridicule, with the rules and regulations governing their own business, when there can be no comparison.

The medical Code of Ethics is to the real physician the meat and drink of his professional character, by its observance and by it alone does he stand or fall among his confreres.

There are many who have amassed wealth by practicing so-called medicine in open violation of this Code, thousands have made fortunes through an intemperate use of the newspaper columns, but they have never been ranking physicians, they have perished with their money and to mention their names is like disturbing a neglected garbage heap. The newspaper man and the physician are antithetical, in them the two extremes meet.

The one must display his work, must send it forth upon the wings of the wind, and the better he does this the better is his work, the other must work in confidence, must carry carefully, never forgetting, but never telling, the secret of men's souls, failing in this his work is nought. How easy then that they should misunderstand us and our rules, that oftentimes they should even oppose our seeming foolish whims and fancies. A better day will come for us when the newspaper man will look at the matter from our standpoint and when we will keep better in mind the peculiar and important work of the newspapers.

FORMALDEHYDE AS A DISINFECTANT.

The generation of formaldehyde gas from an aqueous solution is perhaps the most effective method of disinfecting at the present time. There are, however, some important points, though the merest detail, connected with the manner of the generation. That the gas should be dry and in this way most effective, it must be heated to a very high temperature, otherwise a large part is recondensed and worthless and the room is not disinfected simply because the agent has not been presented in a gaseous form in sufficient quantity. We all know of the inherent tendency of gases to expand and that this tendency is aggravated by heat. It is this expansive force in the formaldehyde gas which acts as a mechanical assistant to its bactericidal action, enabling it to penetrate into the recesses and interspaces where the majority of microorganisms are found.

That this expansive or penetrating quality may be present, it is necessary that the gas should be in sufficient quantity in proportion to the size of the room, otherwise the energy will be insufficient and the results negative.

The other quality of the gas is that it should be superheated; this is necessary not only for the formation of the real gas in question, but to be powerful and far-reaching as it strikes the air of the space to be disinfected.

The temperature must be above 212 deg. F. and for that reason simple boiling of an aquous solution is not attended with any certain results. The proper method is to have a chamber capable of being made exceedingly hot and into which the formaldehyde solution may be permitted to flow little by little, the amount being controlled at will.

With such an apparatus it is only necessary to heat the chamber to 500 to 600 deg. F. and then by mechanical arrangement introduce a small quantity of the solution which is instantly converted into gas which escapes under pressure through proper piping into the room or other space to be disinfected.

By the maintaining of the high temperature and the introduction of the solution in small quantities a gas is formed which is an effective and practical disinfectant.

It goes without saying that a perfectly reliable preparation of formaldehyde is not only desirable, but is absolutely indispensable to successful work.

PROGRESSIVE THERAPEUTICS.

Dr. Hare claims that no branch of our science has made more rapid strides with certainty than the branch of Therapeutics. He goes further and states that whereever the pathologist has pointed out the true cause of disease the therapeutist has invariably met this with a remedy.

Dr. Hare claims that the pathologist has failed so far to give the true cause of rheumatism, hence we have no therapeutical specific to use in rheumatism. We can certainly speak of progressive therapeutics;

the coal tar derivatives alone and which are most valuable therapeutical agents would fill a small book.

Quite often a new therapeutical agent is placed upon the market eminating from reliable hands and its test proves its value. It is well, however, to give proper respect and appreciation to those of the older remedies which have stood the test of time, being no less brilliant to-day in their results. In the new remedies we have no substitute for digitalis, though now we know better of its use. In the dread condition pureperal eclampsia undoubtedly veratrum viride used hypodermically holds first place. This is an age of progress and undoubtedly much good comes of it, however it is grateful to know that we have tried agents, our trusted friends of the past.

THE INTERNATIONAL MEDICAL CONGRESS.

The 13th International Medical Congress will meet in Paris August 2-9, 1900, under the Presidency of M. Lannelongue and will bring together in one city and under one roof the representative medical men of the world. It is well for the doctors of our country to come together and discuss matters of interest and profit, but in this Congress will be men from every civilized country under heaven, representing every tongue and nation and people.

Each country now has a national committee to which anyone who expects to be present at this gathering should write.

Dr. William Osler, of Baltimore, is Chairman of the American National Committee, and Dr. Henry Barton Jacobs, 3 W. Franklin st., Baltimore. is Secretary.

Any physician in good standing may become a member of the Congress by sending his full name and address, degrees and any position of note held, together with the section of the Congress to which the writer wishes to belong, a visiting card should also be enclosed with $5.00 or its equivalent in the currency of your country to the secretary of the national committee. All American physicians will forward to Dr. Jacobs at Baltimore, who will in due time return a card of admission.

Members will receive a digest of the full proceedings of the Congress and the printed report of the section to which they belongs.

Members desiring to present papers will forward the title and a resume before May 1st, 1900, to the secretary of the section to which they belong.

The following countries have national committees: Germany, Argentine Republic, Austro-Hungary, Belgium, Brazil, Bulgaria, Denmark, Spain, United States, Great Britian and Ireland, Canada, Australia, Greece, Italy, Japan, Luxemburg, Mexico, Holland, Peru, Portugal, Roumania, Russia, Servia, Sweden, Norway, Switzerland, Turkey and Egypt.

The sections will be in five classes, Biology, Medicine, Surgery, Obstetrics and Gynecology, Public Medicine.

The first class will be in three sections, Medicine in nine sections, Surgery in seven, Obsteterics and Gynecology in two and Public Medicines in two, making a total of twenty-three sections.

Such a meeting, in such a place, at such a time, promises a combination of pleasure and profit that will last a man the rest of his life, being a constant daily inspiration.

SUBSTITUTION.

That a druggist, having good common sense and any interest or concern in the future welfare of his business, should deliberately and wilfully substitute an express order on a doctor's prescription, is a matter surprising to one who will for a moment consider the principle involved. It is the same in principle as though he substituted the amount prescribed, or the dose directed, or the time to be taken, and no one will question the manifest outrage in doing these.

In a case lately tried in the U. S. Circuit Court, a Chicago druggist was convicted of dispensing an inferior article when a specific kind was called for and was heavily fined and perpetually restrained by the court from repeating the offence. The prescriptions called for "Essence of Pepsin, Fairchilds," and this druggist and his clerks, acting under his instructions, substituted a preparation lacking important properties and characteristics of and distinctly inferior to Fairchilds' Essence of Pepsin.

This case was very hotly contested and it is to be hoped that the decision will protect manufacturing chemists thoughout the country, as they have suffered from these fraudulent practices of a certain class of druggists.

Physicians and their patients are also injured by such nefarious business, but they have a more effective restraining force than the courts, namely, the exercise of judgment in selecting their druggist.

PUBLIC HEALTH IS PUBLIC WEALTH.

Physiologically speaking, there is no perfect individual. Even the man who thinks himself sick is not a well man.

In speaking of the human body an old philosopher once said: "How wonderful

that an instrument with so many strings could stay in tune so long,"

There can be little denying the fact that as civilization enlarges and broadens the human race becomes more susceptible to disease. Dr. Onsler says the three most fruitful causes of disease are eating too much, drinking too much and mental worry. This latter I consider the most important factor of the three.

With us as a nation the time is at hand when, through the medical profession, people must be checked along all three of these lines. If we wish long to retain our strength of mind and of body as a nation we must blend the cares and the pleasures of living, unburden the mind and the body, eat with deliberation, making all things palatable, not mixing drinks, but drinking to quench our natural thirst. Physicians and teachers in schools are the custodians of public health, at least so far as teaching you.

We are ever ready to attend and relieve the sick and the affiicted, but are we doing all that can be done to prevent these conditions?

MULTIPLICITY OF PATHOLOGICAL CONDITIONS.

The successful practitioner of medicine, we mean alike to himself and his patients, should possess accurate and quick judge. ment, not recognizing one condition, but many, all. We are often consulted by parents with a child who is anæmic, no appetite, nervous, dyspeptic, fretful or languid, with loss of childish glee. This patient is brought to us because he or she has a pain in the head. On quick and accurate investigation we find the subject one of scrofulous diathesis, with enlarged tonsils, is also a mouth breather with adenoids filling the post-nasal space. Shall we direct our energies to one or all of these conditions? The question is answered in the asking.

Not long since we were consulted to operate in a case for curettage and laceration of cervix. While these conditions did exist a more accurate investigation proved the existance of a pyosalpinx to be the true cause of complaint. These three conditions should have, and did receive attention.

Quite often we don't succeed because we fail to realize and deal with more condirions than one.

Dr. Kelly, perhaps the greatest living gynecologist and surgeon, never does a laparotomy without thoroughly investigating all the abdominal viscera in reach, and correcting all pathological conditions before closing the abdominal incision.

Pay attention to not one, but all pathological conditions, and you will better serve your patient.

THE CHARLESTON MEETING OF THE TRI-STATE ASSOCIATION.

The second annual meeting of the Tri-State Medical Association of the Carolinas and Virgina will be held in Charleston, S. C., during February, 1900, the exact date to be determined by the executive council and will be announced in our next issue.

This Association, though young, has many influential men among its members and there is no reason why it should not stand first among the several tri-state organizations of the country. Its active membership is confined to Virginia, North and South Carolina, and these States are already so intimately associated in business affairs and so conveniently connected geographically that the maintenance of a medical and scientific partnership should not be difficult of accomplishment. The meeting held in Charlotte was in every way worthy of a tri-state organization, the scientific work done being second to no similar meeting's work for the past year. The transactions of this meeting in a handsome well-printed volume is now in the binder's hands and will be mailed during the coming week.

This volume will compare with the printed transactions of associations much older in years and riper in experience. And another evidence of progress and superb management is the fact that the association will pay all its first year's expenses from its regular income.

The mid-winter meeting in Charleston will be delightful in many ways, the tempered climate of that seaport town will be an agreeable change from the storm-swept plain and snow-covered mountain, the historic points of interest woven into the history of our nation are on every hand, the old Southern hospitality that suffered no harm from the war or damage by the earthquake will be in the forefront and the worth and merit of the professional representatives living here, these all conspire and plot to make the coming meeting most auspicious.

The scientific programme will be rich and varied and will be carried out by men of reputation and character.

The annual discussion will be on the Negro, his sexual life and character, the influence of his present surroundings and

those coming from his far away forest home.

This discussion will be opened with a scholarly paper by Dr. Paul A. Barringer, of the University of Virginia.

Reduced rates will be in force on all railroads and there will be no lack of comfortable housing at very reasonable rates.

THE APPALACHIAN NATIONAL PARK.

An association has been organized, representing the following States: North and South Carolina, Georgia. Tennessee, Virginia, Kentucky, West Virginia, and the District of Columbia, that will endeavor to secure the establishment of a National Park in the mountains of Western North Carolina.

It should be a matter of concern to all, that in a few years the great mountain forests of our country will be no more and the salubrity of our climate will be a thing of the past.

By the united efforts of the people it is possible to secure the favorable action of Congress at its coming session.

Within a day's travel of New York, Philadelphia, Baltimore, and most of the Atlantic seaboard, and quite as accessible to Pittsburg, Cincinnati, Louisville, Indianapolis and St. Louis, there are vast stretches of virgin forest—along the line of the Great Smoky Mountains, on the border between Tennessee and North Carolina—that are thoroughly suited to the purposes of a great game and forest preserve.

Going up from the lowlands of Walhalla, S. C., to the high plateau surroundings Highlands, N. C., a stage trip of about thirty miles, the late Prof. Gray, the eminent botanist of Harvard, tells us that he encountered a greater number of species of indigenous trees than could be observed in a trip from Turkey to England through Europe, or from the Atlantic coast to the Rocky Mountain plateau. The region surrounding that described by Prof. Gray, especially to the west, with the headwaters of the Tennessee, the French Broad and the Savannah rivers, all within a few miles of each other, with fertile valleys and mountain elevations of 5,000 feet or more, and a density of verdure unapproached elsewhere, is an ideal spot for a preserve, where every sort of North American animal or fish would thrive and where almost every tree or plant found within our borders from the Atlantic to the Pacific would grow uncared for.

The timber and mineral wealth of the region is such that it can only be a question of a few decades when these mountain slopes will be denuded, and when the people of the vast valleys that depend on these watersheds for their water supply will suffer from the blindness of a generation that could not foresee the otherwise inevitable and combine its prevention with the benefits of an enduring national park in the populous East.

Throughout the United States there are several national parks. The curiosities and canyons of Yellowstone are walled in and the battlefields of civil strife are all being preserved and are marked by monuments and mausoleum. But the proposed national park of Western North Carolina perpetuates no freaks and fences in no remnant of fratricidal strife. It is not to be a park of impossible geysers or interminable ravines. It is not to be a deadhouse or a landmark of war. It is to be a reservation of life and health and endless beauty; a solitude of peace, an enchanted land, which will blossom as a rose.

George S. Powell, of Ashevill, is President, and Dr. C. P. Ambler, of Asheville, is Secretary of the Association, and we trust they may have the hearty co-operation of every thinking man in the country.

The therapeutical uses of such a National Park are exceedingly great. The salubrity of the climate in this section of the country amid the everlasting hills and the giant trees, has no parallel in the world. The resinous air of these woods bear healing in its wings, if they are only let alone, and so the establishment of a half-million acre park would forever reserve for our people a sanitarium of the Gods.

BOOK REVIEWS.

An American Text-Book of Surgery for Practitioners and Students. By Phineas S. Connor, M.D., William W. Keen, M.D., Roswell Park, M.D., Nicholas Senn, M.D., Francis J Shepherd, M.D., Lewis A. Stimson, M.D., Frederick S. Dennis, M.D., Chas. B. Nancrede M.D., Lewis F. Pilcher, M.D., J. Collins Warren, M.D., and J. William White. Edited By William W. Keen, M.D., L.L.D., and J. William White, M.D., Ph. D., Third Edition. Thoroughly Revised, Philadelphia. W. B. Saunders, 925 Walnut St.,1899. Price, Cloth $7.50. Sheep or 1-2 M. $8.00 net.

This work stands out preeminently as one of the leading text-books on Surgery of the day. It was our privilege and pleasure to receive the first edition in 1892, and the second in 1895, and now the third comes to us thoroughly up-to-date, and probably the best text-book published on the subject of surgery. Of the two former editions of

the American Text-Book there have been sold nearly 29,000 copies. Not only is this true, but it has been adopted as a text-book in over one hundred medical colleges, thus showing a worthy and gratifying appreciation by the profession.

In the present edition with new topics introduced are a full consideration of orrhotherapy leucocytosis; post operative insanity; the use of dry heat at high temperatures; Kronlin's method of locating the central fissures; Hoffa's and Lorenz's operations for congenital dislocations of the hip; Allis's researches on dislocations of the hip-joint; lumber puncture; the forcible reposition of the spine in Potts disease; the treatment of exophthalmic goitre; the surgery of typhoid fever; gastrectomy and other operations on the stomach; several new methods of operating on the intestines; the use of Kelley's rectal specula; the surgery of the ureter; Schleich's infiltration method and the use of eucaine for local anesthesia; Kran's method of skin-grafting; the newer method of disinfecting the hands; the use of gloves, &c. Many other sections have been revised and enlarged and other changes and improvements have been introduced throughout the book.

The work contains many new illustrations, including a colored plate of several specimens of appendicitis, which add much to the value of the book. The publisher has turned out a very handsome and creditable book and we highly commend it to all thinking physicians for its genuine worth.

The Surgical Diseases of the Genito-Urinary Tract, Venereal and Sexual Diseases. A Text Book for Students and Practitioners. By G. Frank Lydston, M.D., Professor of the Surgical Diseases of the Genito-Urinary Organs and Syphiology in the Medical Department of the State University of Illinois; Professor of Criminal Anthropology in the Kent College of Law; Surgeon-in-Chief of the Genito-Urinary Department of the West-Side Dispensary. Fellow of the Chicago Academy of Medicine: Fellow of the American Academy of Political and Social Science: Delegate from the United States to the International Congress for the Prevention of Syphilis and the Veneral Diseases, held at Brussels, Belgium, September 5, 1899, etc. Illustrated with 233 Engravings. 6½x9¾ inches. Pages xvi-1024. Extra Cloth. $5.00, net. Sheep or Half-Russia, $5.75, net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

It has been our pleasure to read the pages of this work with a great deal of interest and profit. The subjects herein treated are probably the most important that comes to the attention of the medical profession. The author of this work is certainly most eminently qualified to write this magnificent work, giving his ideas and methods of managing these tedious and often troublesome diseases.

The work is divided into the following parts:

Part I. General Principles of Genito-Urinary, Sexual and Venereal Pathology and Therapeutics.

Part II. Non-Venereal Diseases of the Penis.

Part III. Diseases of the Urethra and Gonorrhea.

Part IV. Chancroid and Bubo and their Complications.

Part V. Syphilis.

Part VI. Diseases Affecting Sexual Physiology.

Part VII. Diseases of the Prostate and Seminal Vesicles.

Part VIII. Diseases of the Urinary Bladder.

Part IX. Surgical Affections of the Kidney and Ureter.

Part X. Diseases of the Testis and Spermatic Cord.

The first chapter under part 1 is devoted to Genito-Urinary and Sexual Hygiene, and is very interesting and instructive, discussing principally the diet and rest in Genito-Urinary disease.

Space will not allow us to comment on all the chapters in the book, they are all good; they are complete, concise and to the point. We would, however, call especial attention to the section on Strictures and the different methods of treatment. The section also on Syphilis is the best we have ever read, and the author's summary in regard to its treatment is most excellent. We cannot speak too highly of the book or commend it to our readers in too strong terms. It is simply the book every physician needs in his every day work. It is well bound and clearly printed, reflecting much credit upon the publishers.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M. D., LL.D. Tenth Edition, Revised and Enlarged. New York: D. Appleton & Company. 1899.

Bartholow's Materia Medica is probably the best known book that has been published in this country in many, many years. This is the tenth edition of this magnificent work, and when a book reaches the tenth edition it needs very little comment from a reviewer. Bartholow's Materia Medica speaks for itself. It has been used in Med-

ical Colleges as a Text-Book for a great many years. In this edition the author has added full accounts of the newer remedies; has inserted a special article on prescription writing, and has made changes at various points to correct errors that have been overlooked, and to supply omissions of necessary matter. The arrangement which the author has adopted has always seemed the best of any given in the other books on materia medica, viz.: the name of the drug with synonyms; the different preparations and their doses; the Antagonists and Incompatibles; Synergists—Physiological Actions and Therapy. You can always find what you want in this Materia Medica in the easiest possible manner. Further remarks are unnecessary. We are glad to announce that this edition is out, and we heartily commend it to our readers. It is substantially bound and clearly printed.

The Modern Treatment of Wounds. By John E. Summers, Jr., M. D. Medical Publishing Co., 315 McCagne Block, Omaha. 1899.

This book of only one hundred and fifty pages is just what the title describes it—the modern treatment of wounds. It is a very important subject, and one that the doctor is called upon to face every day. It is a subject which the physician cannot be too familiar, and one in which, unless he is familiar, often proves very detrimental both to himself and his patient. The author describes his method of treating the various wounds produced by different means. He also discusses the modern and best methods of treatment in fractures and wounds of joints. He gives an interesting chapter on Erysipelas, Tetanus, Gunshot Wounds, Burns and Frost Bites. The book is modern and will be of great help and aid to the practitioner.

Lectures upon the Principles of Surgery, Delivered at the University of Michigan. By Chas. B. Nancrede, A. M., M. D., LL.D. With an Appendix containing a Resume of the Principal Views held concerning Inflammation. By W. A. Spitzley, A. B., M. D. Illustrated. Philadelphia: W. B. Saunders, 925 Walnut Street. 1899.

This volume is a clear, concise, up to date exposition of the principles of surgery. The chapters are short and to the point, and very expressive. The first few lectures the author devotes to Hyperemia, processes of Repair and Regeneration of Tissues. Following this the author gives very valuable and interesting lectures on Inflammation. This is the subject upon which the main principles of surgery depend, and the writer has explained the subject very clearly. Following this is a nice lecture on changes in the blood. Then he takes up Thrombosis and Embolism. Surgical Fevers are next discussed. All diseases pertaining to the principles of Surgery, such as Pyemia, Autointoxication, Suppuration, Sinus and Fistula, Gangrene, Erysipelas, Tuberculosis, are all very clearly and fully described.

The work contains a fine Appendix containing a resume of the principal views held concerning Inflammation. There is something peculiar about the work you will not find in any other work—you get what you want in such few words. It is printed in fine style, large clear type and neatly bound. It is a safe and reliable guide for the practitioner, and a work he will greatly enjoy and appreciate.

Bacteriology in Medicine and Surgery. A practical manual for physicians, health officers and students, by William H. Park, M. D., Associate Professor of Bacteriology and Hygiene in the University and Bellevue Medical College, New York. In one 12mo. volume of 688 pages, with 87 illustrations in black and colors and two full page colored plates. Just ready. Cloth, $3.00 net. Lea Brothers & Co., Philadelphia and New York.

Bacteriology today is one of the most important branches of medical science. An acquaintance, therefore, with the main facts and results of bacteriology is as necessory to the education of the modern physician as a knowledge of anatomy, pathology, chemistry, or any of the allied sciences. The pages of this book show that the vast results obtained by bacteriology were gained only through long and laborious research, and after many obstacles were met and overcome by indomitable perseverance and accurate observation and experiment. It may be of interest to note that the first authentic observation of living microscopical organizations of which there is any record are those of Anathius Kircher, in 1671. Not long after this, in 1675, Anthony van Leenwenhoek observed putrid infusions in rain water and motile. "Animalculæ" in his own saliva and diarrhœal evacuations, but it was not until many years later that any attempt was made to define the characters of these minute organisms and to classify them.

In the writings of this book the author has grouped together those facts in Bacteriology which will constitute a sufficient text-book for the student, and which are of direct practical value to the physician and health officer. The technique of laboratory work is given in its essentials and in such a manner that makes bacteriological methods

plain to the physician, which will guide him in making examinations in his office, and will show him under what conditions he can obtain diagnostic value or other help from bacteriological examinations in laboratories.

The author has laid special stress upon chemical changes produced by bacteria, infection, immunity, the nature and use of protective serums, and the diagnostic value of bacteriological cultures, since the knowledge of such subjects is of special importance to the practicing physician, in that it enables him to obtain an intelligent grasp of the nature of the infectious diseases. The methods used for the identification and isolation of the typhoid , tubercle and diphtheria bacilli have been given with special fullness. The introduction in the book is almost worth its price. It is neatly bound, fully illustrated in black and colors and, besides, a full general index; the volume contains a novel and useful "Index of Diseases and the Bacteria found in them."

The Medical News Visiting List for 1900. Weekly (dated, for 30 patients); Monthly (undated, for 120 patients per month); Perpetual (undated, for 30 patients weekly per year); and Perpetual (undated, for 60 patients weekly per year). The first three styles contain 32 pages of data and 160 pages of blanks. The 60-patient Perpetual consists of 256 pages of blanks. Each style is one wallet-shaped book, pencil and rubber. Seal Grain Leather, $1.25. Thumb-letter index 25 cents extra. Philadelphia and New York: Lea Brothers & Co.

A visiting list is an indispensable convenience for the active practitioner. Its carefully adapted blanks enable him at once to note clinical details or every day work, as well as charges and receipts, and to unburden his memory from what can better be carried on paper. It also furnishes him with a legal record necessary for the collection of delinquent bills. Prominent among the many books of this nature stands the Medical News Visiting List. Its blank pages are arranged to classify and record memoranda and engagements of every description occurring in the practice of the physician, surgeon or obstetrician. The work opens with 32 pages of printed data of the most useful sort, including an alphabetical Table of Diseases with Approved Remedies, a Table of Doses, Sections on Examination of Urine, Artificial Respiration, Incompatibles, Poisons and Antidotes, a Diagnostic Table of Eruptive Fevers, and a full-page plate showing at a glance the incisions for ligation of the various arteries, an invaluable guide in such emergencies. The Medical News Visiting List is issued in four styles, adapted to any system of records and any method of keeping professional accounts. It is printed on fine, tough paper, suitable for pen or pencil and durably and handsomely bound in the size of a wallet for the pocket. When desired a Ready Reference Thumb-letter Index is furnished which is an economizer of time.

Lee's Series of Pocket Text-Books. Physiology. A Manual for Students and Practitioners. By Howard D. Collins, M. D., and Wm. H. Rockwell, Jr., M. D. Series edited by Bern B. Gallaudet, M. D. Lea, Brothers & Co., Philadelphia and New York.

This work contains three hundred and twenty-three pages, and furnishes a compendious, trustworthy, and modern textbook of Physiology. This is the fourth volume of Lea's Series of Pocket Text-Books, and the authors of this Series are all teachers of experience in their respective subjects. The present volume before us shows throughout an appreciation of the difficulties attending the study of Physiology, and a successful effort to overcome them.

For the student, the larger works on Physiology are unhandy to study, too much time has to be spent in search of the cardinal facts, and the smaller works are scarcely complete, so that this work coming between furnishes information sufficiently full and accurate. In each section, in addition to the purely physiological aspects, pertinent histological considerations are discussed, such as those of the cell in general and of the neuron in the nervous system. Wherever the authors thought practicable the application of physiological principles to pathological conditions is also dealt with. This Series, when completed, will constitute a modern and concise library of medicine, where the student can find a text-book on any subject, and the practitioner can post himself up to date. The present volume is well illustrated and printed in large clear type, and is nicely bound.

Saunders' Pocket Medical Formulary, with an Appendix. By William M. Powell, M. D. Fifth Edition. Thoroughly Revised. Philadelphia: W. B. Saunders, 925 Walnut St. 1899.

In this new edition of this Formulary extensive revision and additions have been made which brings the book in line with the advances that have been made in therapeutics. A large number of new formulæ have been introduced, and many of older date and lesser usefulness have been replaced by others of recent origin and established worth. It not only contains the ex-

cellent formulary, but a good dose table; a section on Incompatibles; Treatment of Asphyxia and Drowning; Surgical Remembrances; Formulas and Doses for Hypodermic Medication; Diameters of the Female Pelvis and Fœtal Head; Diet Table, and the last section being devoted to Drugs and Materials used in Antiseptic Surgery.

Notes on the Modern Treatment of Fractures. By Jno. B. Roberts, A. M., M. D. New York: D. Appleton & Company. 1899.

This book contains one hundred and sixty-two pages and is divided into twenty-nine short and very readible chapters. No injuries require more careful and judicious treatment than fractures; and in no branch of surgical therapeutics is the exercise of common sense followed by more satisfactory results than in the treatment of these lesions. These essays brought together in this volume represent the views announced by the author at various times, who is a very independent thinker, always abandoning false theories, seeking only the truth. In discussing the exploratory incision in closed fractures we notice the author is a great advocate of this method. The work is modern in every respect, and the methods of treating different fractures are up to date, and such as physicians of to-day should know and carry out. Every chapter is very important. The work is clearly and neatly printed and bound. It will be most valuable to all practising physicians.

Essentials of Physical Diagnosis of the Thorax. By Arthur M. Corwin, A.M., M.D. Price $1.25. Third Edition. Revised and Enlarged. Philadelphia. W. B. Saunders, 925 Walnut St., 1899.

This little work presents in a systematic form the gist of the science of physical diagnosis as applied to the thorax. The work is so arranged as to meet the immediate demands of the student, and be a further guide to a more elaborate study of the theme as set forth in existing literature. While the student is in college he has not the time to seek out this information in extensive treaties and to arrange them for proper assimilation.

The work has several good illustrations, is neatly printed and nicely bound.

The Physician's Visiting List (Lindsay & Blakiston's) for 1900. Forty-ninth Year of its Publication. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St.

This is one of the oldest and most extensively used Visiting List that is published. It is neat, nice, complete and easy to carry. It not only contains a Visiting List for twenty-five patients per week interlined, but it also contains table of signs, tables of measures and weights of both systems, a complete dose table, and a table for calculating the period of utero-gestation. It is convenient of size with a substantial flexible binding.

Saunder's Compends No. 3, Essentials of Anatomy, Including the Anatomy of the Viscera. Arranged in the form of Questions and Answers Prepared Especially for Students of Medicine. By Charles B. Nancrede, M.D., Sixth Edition, Thoroughly Revised by Fred J. Brockevry, M.D., Phil. W. B. Saunders, 925 Walnut St., 1899.

The author of this compend has embodied only those facts which have appeared to him to be really the "Essentials of Anatomy."

The works are not intended to replace the larger anatomical works, but sufficient discriptive matter has been introduced to refresh the student's memory of the more numerous facts learned in the lecture and dissecting room, or from his "Gray" or other text-books. The work is well illustrated and bound and gives all the principle facts concerning anatomy in a brief and concise manner.

LITERARY NOTES.

Among the many interesting and timely articles in the December Forum are "A British View of the Transvaal Question," by J. Castell Hopkins; "The Status of Puerto Rico," by Judge H. G. Curtis of the Insular Commission; "The Trust Problem—Its Real Nature," by Prof. E. W. Bemis; "Recent Developments in the South," by Leonora Beck Ellis; "The Fundamentals of Fiction," by Prof. Richard Burton of the University of Minnesota; "Africa: Present and Future," by O. P. Austin, Chief of the U. S. Bureau of Statistics; and "Zangwill's Play, 'The Children of the Ghetto'," by A. Cahan.

The Christmas number of Scribner's this year contains several striking novelties in illustration. The methods are not only new, but the results are in every way artistic. Walter Appleton Clark's pictures, which accompany Harrison Morris's Ballad of Three Kings, are as rich in color as an old stained-glass window. The original pictures have been reproduced with absolute fidelity, so that there are none of the violent contrasts of color so often seen when a painting is reproduced by modern processes of printing.

THE "NEW LIPPINCOTT" MAGAZINE FOR DECEMBER, 1899.—The December "New Lippincott" breathes the Christmas spirit throughout. The complete novel by Ernest Rhys in the December "New Lippincott," under the striking title of "The Whistling Maid," is a romance of rushing interest and weird beauty, surpassing anything yet achieved by a writer of far-reaching fame. It exhales the very breath of the Welsh land in which the scene is laid, and brings back the charm of love and martial glory which characterized the days of Celtic knighthood.

Of almost equal importance with the longer novel is a brief one by William D. Howells, called "The Magic of a Voice," a bright and amusing tale of upper New York State, where the undercurrent of marvellous penetration is evident in an unusual degree, as well as Mr. Howell's keen sense of humor.

An attractively subtle story "The Perfume of the Rose," by Flora Annie Steel, describes the visit of an Englishman and his sweetheart to a distiller of roses in India, where they seek the "secret" of the perfume.

A Christmas paper on "The Real Star of Bethlehem" by Julia MacNair Wright, accompanied by a frontispiece from a beautiful painting of the "Star," by Henry R. Poore; "The Return of William Penn," in December, 1699, by William Perrine, well known as "Penn;" "Washington's Death and the Doctors," by the authoritative pen of Solomon Solis Cohen, M. D.; and a delightful talk about "Alphonse Daudet and his Intimates," written by one of the latter, Jean Francois Reffaelli, the celebrated artist now in this country, comprise a contents most interesting and seasonable.

Edwin Markham, the author of "The Man with the Hoe," contributes a strong and impressive poem, significantly entitled "The End of the Century."

"The Little Child," by Albert Bigelow Paine, and "At Nazareth," by Thomas Walsh, are poems appropriate to the season.

The Living Age for 1900. During the fifty-six years of its existence this sterling weekly magazine has steadily maintained its high standard. It is a thoroughly satisfactory compilation of the most valuable literature of the day, and as such is unrivaled. As periodicals of all sorts continue to multiply, this magazine continues to increase in value; and it has become a necessity to the American reader. By its aid alone he can, with an economy or time, labor and money otherwise impracticable, keep well abreast with the literary and scientific progress of the age and with the work of the ablest living writers. It is the most comprehensive of magazines, and its prospectus for 1900, which appears in another column, is well worth the attention of all who are selecting their reading matter for the new year. To new subscribers remitting now for the year 1900 the intervening numbers of 1899 are sent gratis. The Living Age Co., Boston, are the publishers.

In the December number of the American Monthly Review of Reviews there is an editorial summary of the results of the elections, with a discussion of their import as an indorsement of the administration's policy. The editor also describes the progress of the Philippine campaign, the war in South Africa, and many other matters of international interest.

ABSTRACTS of the One Hundred Leading Articles of the Month.

Bone and Joint Disease.

Gibney, in the Medical News for October 28th, discusses certain aspects of bone and joint disease of interest to the general practitioner.

The fact is emphasized that often a slight injury will result in disease of bone and joint, especially in children convalescing from the exanthemata or other infectious diseases.

Recurrent blows on a given member may develop disease, as repeated blows may so impair the walls of a blood-vessel that rupture takes place.

Slight injuries occurring in a patient whose ancestry is rheumatic or gouty are very likely to bring out or develop rheumatism or gout.

The three diseases most persistent and that impair the functions of joints most frequently are tuberculosis, sarcomata and rheumatism. The diseases most likely to produce deformity are rickets, poliomyelitis, tuberculous osteitis, rheumatism, gout and neoplasms involving the epiphysis.

He also calls attention to the acute affections of the hip and knee, as a plegmonous periarthritis by involvement of the psoas and iliacus muscles may produce deformity of the hip.

He closes by emphasizing the importance of early diagnosis in all diseases that end in deformity or disease and a careful study of all points in differential diagnosis.

Hernia Following Abdominal Operations.

Smith, in the Pacific Medical Journal for November, says, that hernia is a frequent complication following abdominal section, and that when it does occur, it often deters other women from undergoing a needed laporatomy.

He thinks that it is quite preventable and gives the following ways:

By leaving the stitches for one month if the woman is thin enough to allow us to use through-and-through sutures; or,

By using non-absorbable buried ligatures when the woman is fat enough to require two layers of sutures. The writer prepares his silkworm gut by placing it in sealed glass tubes and boiling it. A cut with a file is made in the middle, and just when it is required for use the tube is snapped across.

By discarding the abdominal drainage tube, and when drainage is necessary, which it rarely is, draining through the vagina.

By securing accurate coaptation of the cut edges by marking the places where the stitches are to go before the incision is made.

By taking care that no peritoneum is curved up so as to come between the muscle and fascia of opposite sides.

After the hernia has formed it is easily cured with a single buried silkworm gut purse string suture; in larger cases split the edge of the ring until the recti muscles are exposed from top to bottom, then suture them with buried silkworm gut.

But as prevention is better than cure, he urges the above rules after each operation.

Wounds of the Eyeball.

Destructive wounds of the eyeball are easier to treat than the milder cases of injury, says Marshall in Treatment for October 26th.

The milder injuries he classifies under three heads: wounds of the cornea or sclerotic alone, wounds of the cornea, iris, ciliary body, choroid and retina, and wounds of the lens.

Sympathetic ophthalmia is the serious condition to be dreaded in wounds of the eyeball.

Foreign bodies may be detected by the X rays and the photographic plate.

Suppurating eyeballs are to be judiciously treated or we may have a case of meningitis on our hands.

He recommends removing the purulent material first and then enucleation. He believes in irrigation after removal, though a free outlet must be maintained.

Iodide of Potassium in the Treatment of Acne.

Leviseur, in the Medical Record for November 11th, recommends 5 grains of Iodide of potassium administered in milk three times daily for the cure of acne vulgaris. This drug soon produces symptoms of iodism in this condition even when given in small doses, and the patient must be carefully watched and medicine stopped as soon as the physiologic effect is induced, He advised testing the urine for iodide and gives a simple test that will show 1 part in 6 thousand.

Some urine is mixed in a test tube with one-third its volume of ordinary corn-starch, then a drop of commercial nitric acid is allowed to run down the side of the tube which will form a streak bordered by a blue or violet color gradually disappearing.

The drug is discontinued until the local reaction subsides and is then repeated as may be necessary, in the meantime a mild sulphur ointment is used in connection with a ten per cent. ichthyol soap.

The Peripheral Causation of Epilepsy.

Edsall, in the Medical News for November 18th, says that in the present state of our knowledge we must recognize a central condition as in part responsible for epilepsy. Still he admits and reports cases to show that peripheral irritation may be determining causes in the production of the disease.

In one class of his cases, the relief from eye strain and the establishment of the menses sufficiently lightened the burden of the central nervous system to admit of the restorative forces of Nature repairing whatever trouble may have been at the bottom of the attack, and so the relief was permanent.

However. in another case the condition originating the convulsions was too permanent to be overcome, as the central lesions had advanced to a point where they could originate an attack unaided.

The Prevention of Small Pox.

Vaccination is most important says Baird, in the Virginia Medical Semi-Monthly for October 27th, and should be performed at least twice on each individual, at two to six months and at puberty.

Strict quarantine and thorough vaccination will prevent the spread of an epidemic.

The author believes in compulsory vaccination, and urges the passage of better laws in regard to vaccination and quarantine.

Menstruation following Supra-Vaginal Hysterectomy.

Ashton, in the Medical Bulletin for November, reports a case in which the ovaries and tubes had been removed a year previously though menstruation came on regularly every two weeks lasting from four to five days.

He did a supra-vaginal hysterectomy removing an old inflammatory uterus. Menstruation was absent for two months and then appeared regularly every four or five weeks up to the present time (about three and a half years). The blood must come from the cervical canal as the uterus was amputated close up to the vaginal junction and the upper opening closed with peritoneum.

Another peculiar aspect of the case is that after the first operation—removing the tubes and ovaries—menstruation became more frequent, occurring every two weeks, but after the hysterectomy was performed the normal interval of from four to five weeks between the periods was re-established.

Double Inguinal Hernia.

Eckley and Davison, in the Chicago Clinic for November, report a case of double inguinal hernia in a man aged 61. The rupture had been on the left side as long as the patient could remember, but that of the right side only appeared ten days previous to admission.

Strangulation was present and he died on the fourth day, as he refused operative treatment.

The penis was completely covered up by the tumors with only a dimple to show its location two inches below the surface.

The right hernial sac was chiefly filled with omentum. In the left were found the sigmoid with its entire meso-sigmoid attachment, and the greater part of the jejunum and ileum.

There was considerable displacement of the other viscera as the transverse duodenum lay on the lumbo-sacral promontory.

Quarantine in Tuberculosis.

Rather than this, Cole, in the Southern California Practitioner for November, suggests instruction of the public through the press and by circulars issued by societies and the health authorities.

He suggests that the physicians must take the initiative in this matter by more care in instructing their patients individually, and by the giving out of public information by the health department and by all organized medical bodies.

Hygiene and Sanitation among the Railroads.

The fact that hygiene and sanitation are making progress in all matters pertaining to railroads is clearly pointed out by Conn in the Railway Surgeon for November 14th. He recalls the time when such things were very little thought about by the managers of our railroads, but gradually under the direction of the railway surgeon these things are coming more and more to the front.

Clean, well ventilated cars are too great an advertisement for one road to lack while another has, and so as a matter of dollars and cents the railroads must look after hygiene and sanitation, not only of cars but of stations and waiting rooms.

Among all the first-class roads of the country the employees have definite instructions in regard to the cleansing and disinfection of cars, and the rules are rigidly enforced.

The New England roads are in the forefront of this advance along the line of sanitation.

Is Alcohol an Indispensable Medicine.

This question is answered very strongly in the negative by MacNicholl in the Southern Medical Journal for November.

He even goes farther and shows that alcohol may be used to the infinite harm and hurt of the patient.

He well states that custom has made it a panacea for every ill. While patients seemingly improve under its anesthetic effect, the delicate tissue-structure is damaged by albuminous coagulation.

By its theft of water alcohol devitalizes the blood, retards elimination and prevents assimilation.

He states that three representative hospitals, where alcohol was "used with moderation," had an average mortality rate of 12.48 per cent., while those not using it show an average death-rate of only 3.2 per cent.

The Operation for Stone.

Excepting for small or soft stones, Brinton, in the Therapeutic Gazette for November 15th, recommends the suprapubic operation as preferable to any other. Among the advantages he mentions the ease of performance; its thoroughness and operative certainty; good drainage; slight constitutional involvement; convalescence speedy; after cure satisfactory; its indication at all ages.

When the stones are small or soft he advises litholapaxy. The perineal operation he considers unadvisable in any case.

Normal Saline Solution.

The simple solution of salt is recommended by Heineck, in the Chicago Clinic for October instead of the compound mixtures as being more easily procured and equally effective.

A teaspoonful of salt to a pint of boiled and filtered water is all that is necessary.

Among the uses of this solution he mentions: as a throat and nose spray and cleansing agent; as a douche in skin grafting, antiseptics hinder the best results in such work; as an irrigating fluid for wounds; in diarrheal affections; in the anemic form of asphyxia neonatorum; in surgical and puerperal infections; in malignant forms of syphilis; in uremic poisoning; in puerperal eclampsia; before operative procedures; in diabetic coma; in shock or collapse following hemorrhage.

The three methods of administration are used according to the urgency of the case; by rectal enema, subcutaneously, intravenous injection. For the two latter methods absolute cleanliness is required.

Skin Diseases and Syphilis.

Marshall, in Treatment for October 26th, discusses the diagnosis between certain skin diseases and syphilis.

The typical hard sore is characteristic in primary syphilis, but there is a typical soft sore and oftentimes the diagnosis cannot be made from the primary sore.

So we must differentiate between syphilis and herpes preputialis, imflamed smegma glands, and excoriations.

The classical features of secondary syphilis are, tendency to polymorphism, copper color, symmetrical distribution, tendency to effect flexor surfaces, and the absence of itching.

Tertiary syphilis of the skin consists in the formation of cutaneous and subcutaneous gummata, rupial ulceration and ulcerating gummata; also conditions resembling tylosis or hardening and thickening of the epidermis of the feet.

Rheumatoid Arthritis in Chronic Disease of the Middle Ear.

There has been much speculation concerning chronic non-suppurating disease of the middle ear, and Bayliss in the Laryngoscope for November, considers it a rheumatoid arthritis of the ossicular joints. Other writers have pointed out some relationship between rheumatism and middle ear disease but Bayliss notices a large number of patients afflicted with rheumatic arthritis who were extremely deaf,

Rheumatoid arthritis being a polyarticular affection, he sees no reason why these minute joints should be exempt from the morbid process, especially as they are largely composed of cartilage which is very prone to rheumatoid degeneration.

The tendency of joints so diseased to become ankylosed is well known and applies with great force to the bones of the ear.

This, he thinks, accounts for the usually hopeless character of the cases, as by the time the patient seeks advice for his deafness, the bones are most probably completely fixed and rigid.

Mercury Baths for Small Pox.

The bi-chloride of mercury baths in the treatment of variola are very highly recommended by Bibb in the Texas Medical Journal for November.

He used a solution of 1 to 500 in 55 cases with the very best results.

His solution was sponged over the entire body every four hours.

There were only two deaths out of the 55 cases.

The author concludes that the bi-chloride of mercury, applied as herein indicated and *soon enough*, is the rational treatment of variola.

That its use will prevent itching, foul odors, pustulation, abscesses and pitting.

That it will greatly lessen the mortality and suffering from one of the most loathsome diseases that affects the human race.

That it should be expected to destroy the variolous virus in the vesicles and pustules, thus rendering the scabs and scales harmless, reducing thereby, to the minimum, the dangers of infection from a given case of smallpox.

Brain Tumor and Ocular Changes.

Ball, in the American Journal of Surgery and Gynecology, reports a case of large tumor of the brain producing few symptoms save ocular changes.

The localizing symptoms were so vague and indefinite that the side of the head containing the growth could not be determined, before the operation.

The opthalmoscope showed a marked condition of double choked disc, the pain was referred to the parietal region and the base, pupils dilated one-half and vision entirely lost.

The tumor was found on autopsy to be a spindle celled sarcoma, growing from the dura over the opercula of the island of Reil, and was clearly defined from the brain structure.

Appendicular Abscess Evacuated Through the Pleural Cavity.

The danger of delayed operative interference in appendicitis is illustrated in the report of a case by Wetherell in the Medical and Surgical Monitor for November.

The patient was taken with the usual symptoms, but under medicinal treatment they gradually improved for awhile, but the recovery was not perfect. The patient later passed into a typhoid condition and on examination showed increased hepatic dullness and tenderness.

On opening the pleural cavity between the seventh and eighth rib, a slop jar full pus was evacuated. The abscess had penetrated the retro-peritoneal space behind the cecum and working its way upward, made an opening through the diaphragm and filled the pleural cavity.

The case terminated fatally, 24 hours after the operation, as the general infection was too far advanced.

The History and Literature of Appendicitis.

A very extensive review of this subject is made by Ederbohls in the Medical Record for November 25th.

The term appendicitis, though a barbarism, is too firmly attached by adhesions to ever be removed with safety.

The early history is, of course, confused with other things and other names, but the most ancient, undoubted case was described by Saracenus in 1642. However, it was not until 1759 that appendicitis was recognized as a distlnct entity by Mestivier.

This knowledge was barely used or improved upon until the establishment of McBurney's point in 1889, and the introduction and elaboration in 1894 by Ederbohls, of palpation of the appendix.

Four per cent. of all women have appendicitis. Only one authentic case is on record of congenital absence of the appendix.

The causative factors are local in character. The similarity of the lymphoid tissues involved makes appendicitis analogous to quinsy.

Heredity, bacteria, gout, rheumatism, muscular action, influenza, acute infection, and movable kidney, are all said to be concerned in the production. Foreign bodies have no causative relation, but are the results of the inflammation.

Entozoa have been found in the following varieties: ascarides lumbricoides, oxyuris vermicularis, and tricocephalus dispar.

Coproliths are found most frequently, next to them pins.

Other foreign bodies found in the appendix are: grape seeds, melon seeds, a chocolate nut, a grain of oats, cherry stones, raspberry seeds, prune stones, a date seed, orange seeds, a bean, tomato seeds, a fruit stone, huckleberry seeds, blackberry seeds, shell of hazelnut, a piece of chestnut, peanuts, hair, a bristle, a glazier's point of zinc, a globule of solder, a gelatin capsule, a piece of bone, a piece of screw nail, a rifle cartridge, fin of a fish, knot of a heavy silk ligature from a tubo-ovarian pedicle.

The first excision of the appendix for acute inflammation was performed by Kronlein in 1884, but all of the early operations terminated fatally.

The first successful removal of the appendix was done by Morton in 1888.

Eclampsia at the Boston Lying-in Hospital.

Newell, in the Boston Medical and Surgical Journal for November 9th, reports 90 cases of so-called eclampsia. Eleven were cases of threatened or aborted eclampsia, the other 79 being true eclampsia. These cases occurred in the past fifteen years, and during that period 6,700 deliveries, so that eclampsia developed in 11.7 out of each thousand cases.

Of the 79, 57 or 72.2 per cent. were primipara; 32 or 40.5 per cent. had convulsions before the advent of labor; 22 or 27.8 per cent. during labor; and 25 or 31.7 per cent. after labor was completed.

Three cases came to autopsy, but they gave no clew to the cause of the disease beyond the fact that the changes corresponded closely with those found in other toxemias.

The average length of labor in the 47 cases having convulsions coming on during and after labor was 21.9 hours.

The longest labor was one hundred and twenty-five hours, and the shortest primiparous two hours and fifty minutes.

Of the 57 primipara only six were over thirty years of age.

In 21 cases there were no prodromal symptoms. Of the 53 giving a history of symptoms, 37 complained of frontal headache; 33 had vomiting; 19 had epigastric pain; 5 had been noticed by their friends as being more stupid than usual; 5 complained of blindness or blurring of vision for some days previous to the attack, while several others complained of it just before the attack; three had twitchings; one was delirious for twenty-four hours, and one had jaundice. These symptoms were present from an hour or two to three months before the attack.

In two of the 79 cases the urine contained no albumin and the sediment was normal.

The 58 who recovered averaged six con-

vulsions each, the 21 fatal cases averaged 11.9 convulsions.

The mortality was 26.5 per cent.

The treatment was in the main to empty the uterus as rapidly as possible and the encouragement of all excretions.

After a careful study of the records the author thinks that shock incident to operative delivery played a considerable part in the death-rate, and recommends that we pay more attention to this condition.

Pilocarpine was used in 56 cases, five of whom died of pulmonary edema, illustrating the danger in giving that drug to unconscious patients. Morphia was used in two cases, both patients developed alarming symptoms, the medicine was discontinued, the patients recovering.

Saline infusion was used in 8 cases.

In 26 out of 64 ante- and interpartum cases the convulsions ceased as soon as the uterus was emptied.

Operative delivery was resorted to in 49 out of 56 ante- and interpartum cases with 16 deaths. Twenty-five children were stillborn or died shortly after birth.

Twenty-seven versions were done and 10 saved.

Of the 25 postpartum cases 3 children were lost.

Angiotripsy.

The instrumental compression of vessels for the control of hemorrhage is of course used by all surgeons where the bleeding is from small arteries or from tissue, but the same principal is extended to vessels of large size by Cleveland in the Medieal News for November 11th.

The instrument is called an Angiotribe or vessel crusher, and is nothing more than a powerful clamp made to stand an immense leverage and capable of exerting a pressure of three thousand pounds. When the instrument is removed, after being left on for two or three minutes, a flat ribbon of tissue the width of the blades are left,the vessel walls being completely agglutinized.

He considers this method even superior to the eclectic clamp method of Dr. Skene in certain cases.

In vaginal hysterectomy for obliteration of the uterine arteries, he reports most excellent results, together with the histories of twenty-six successful cases in which this method of controlling hemorrhage was used.

The instrument is necessarily heavy and somewhat bulky, but the results of its use are so far superior to the ligature or clamp left in situ for 36 to 48 hours, that these are not to be called detractions.

There is a marked difference between the patient operated upon in this way and those upon whom the clamp has been used in the first 24 hours. The almost total absence of pain, and the absence of almost every indication that a severe operation has been performed, is the rule after the use of the angiotribe.

Typhoid Fever at the Roosevelt Hospital.

For the months of June, September and October, during the past ten years, there were 368 cases of typhoid fever in the Roosevelt Hospital under the care of Dr. Thomson, and in the Medical Record for November 11th, he gives some observations based on a study of these cases.

275 were males, 93 females, number of deaths 25 or 6.8%. Of those who died, 14 died within a week after admission.

The average duration of the fever before admission, for the entire number, was 9.43 days.

Diarrhea occurred in only 32 or 8.7% of the cases, and this absence of the once prominent symptom he attributes to the change in the feeding of fever patients. He is certain that the continuous administration of meat broths day and night will certainly induce fermentation and tympanites. Leaving out 39 soldiers, tympanites was present in 45 cases or 11%.

Hemorrhage occurred in 27 or 8.3%, and in no instance was it directly fatal. Where the bleeding was profuse 8 to 12 ounces of decinormal saline solution was markedly beneficial.

The best site for this is in the lumbar region between the crest of the ilium and the 12th rib, and may be given through an ordinary hypodermic needle attached to a fountain syringe.

Among the 19 deaths of male patients, 4 succumbed to intestinal perforation, laparotomy was done in two of the cases but to no avail.

Delirium was noted in 46 or 12.7%, pneumonia in 10 or 2.7%, bronchitis in 29 or nearly 8%, peripheral neuritis in 24 or not quite 7%, phlebitis in 7, subcutaneous abscess in 29 or nearly 8%, and relapses occurred in 55 or 15%.

In one of the fatal cases (male) typhoid ulcers were found only in the large intestines.

His treatment was five grains of calomel and thirty-five grains of compound jalap power every third night till the close of the second week,the presence of diarrhea being no contraindication.

The exclusive diet until the fourth week was equal parts of milk and lime-water.

From the beginning to the end of the fever ten grains of pepsin and ten grains of bismuth subcorbonate are given every three hours.

At the first signs of dryness of the tip oj the tongue,ten to twenty minims of turpentine are given every four hours in emulsion.

The usual cardiac stimulants except digitalis were used when indicated.

For intestinal hemorrhage ¼ grain of silver nitrate and the same of opium in pill every two to four hours.

For the general toxemia nothing equals the cold bath, the patient being put in the tub as soon as the temperature reaches 103 degrees.

Baths charged with the artificial Nauheim salts and carbonic acid were less depressing and the antipyretic effect was more prolonged.

In albuminuria during the progress of the fever and in all cases where there are severe toxic symptoms he recommends rectal irrigations of four to six gallons of decinormal saline solution on account of its effect in promoting renal elimination.

Syphilis and Life Insurance.

There is syphilis and syphilis says Kelch in the Va. Medical Semi-Monthly for Oct. 27th.

The case may be benign, yielding readily to treatment, or it may be menacing, malignant and resistant, and so he considers the ordinary questions in regard to this disease on insurance blanks as too loose and vague. Cases of syphilis that are bad for insurance are those which from the multiplicity and intensity of their accidents,may be characterized as grave; it may be on account of the nature of their manifestations, ulcerations, deep, extensive, phagadenic, menacing, etc.; again, it might be on accout of their tendency to the visceral form, or to morbid determinations which ordinarily occur only in an advanced age of the diathesis, or perhaps on account of the reaction which it exerts upon the constitution, the nutrition, the health; a syphilis of the asthenic, depressive, innutritive form; or again, one obstinate to treatment or one presenting such and such peculiarities infinitely variable but all unequivocally indicating an unusual intensity, a real malignity, as it were, of the diathesis.

"Bad again are those cases which select for their morbid determinations some important organ, such as the eye, brain,spinal cord, medulla, etc. Those cases particularly tending toward ocular localization are remarkable for their obstinacy and relapses."

Then it might seem that no syphilitic is a fit subject for insurance but this is as false as its opposite,any syphilitic is a fit subject.

He states that the really safe syphilitic for insurance is neither the benign nor the malignant but the *moderately severe* as a factor of great importance is the treatment the applicant has undergone.

The benign cases are not sufficiently troubled to undergo proper treatment and the diathesis shows itself ten, fifteen, twenty or more years later in some obscure manifestations of the brain or spinal cord.

So then the important matter is, if an applicant has had syphilis, what treatment has he had and for how long.

Entrance of Air into the Circulation.

Sudden deaths due to heart failure are often caused by the entrance of air into the circulation, says MacPherson in the Medical Record for November 11th.

He thinks that postmortem examiners should always look for air in the cavities of the heart and in the coronary arteries in cases of sudden death, particularly in abortion cases. Not only in cases of criminal abortion may air be forced into the general circulation but in typhoid and other ulcerating diseases of the intestines with great tympanites.

He says that even in giving a hypodermic injection we should be careful to see that all air is forced out before introduction of the needle.

In the careless use of peroxide of hydrogen in such cavities as the bladder, uterus or large abscess, the danger is great from the rapid development of gas with a very small outlet or even none at all.

Even rectal enemata should be used judiciously and with care.

Hemorrhagic Diathesis in Typhoid Fever.

A case of typhoid terminating fatally and showing on autopsy hemorrhagic areas in the bladder and ecchymosis in all the serous membranes, is reported by Musser and Sailer in the International Medical Magazine for November.

During the course of the disease the pulse rate varied from 90 to 120.

On the fifteenth day there was profuse epistaxis, oozing of blood from the gums and mucous membrane of the tongue, petechial spots and a large ecchymosis over the right shoulder. The patient grew gradually worse until death the following day.

The family history was negative except for a tendency to become short of breath upon exertion

Carcinoma Under the Age of Thirty.

Three cases of cancer in patients under this age are reported by Cumston in the Boston Medical and Surgical Journal for September 2d, their ages being 19, 28, and 24 respectively.

The first case age 19, female, had cancer of the liver, the second age 28, female, had uterine cancer, and the third case age 24, male, had carcinoma of the ascending colon.

In a review of reported cases in medical literature he finds out of a total of 6116 cases, 247 were in persons under thirty. Several additional cases being reported outside of the series.

Carcinoma of the ovary seems more frequent under 30, in proportion to the whole number of cases than in other organs, as out of 48 cases of carcinama of the ovary, 16 were in subjects under 30.

The malignant character of the disease process seems in no wise affected by the age of the patient, unless, as indicated by Dr. Cumston's cases, it is rendered even more malignant.

Myorrhapy of Recti Abdominis for Eventration.

The New York Medical Journal, for November 11th, editorially comments upon an operation performed by Mouratof for eventration five months after delivery. The separation of the muscles was first noticed five days after delivery with forceps, labor having lasted 36 hours.

At the time of the operation the eventration was complete, the abdominal organs lying immediately beneath the integument and being freely palpable as to all the details of their contour. The incision reached from just below the xiphoid cartilage to the pubes, the peritoneum not being opened.

The inner edges of the muscles were refreshened and brought together with fine silk sutures inserted about one-fourth of an inch apart, and in addition four heavy silk sutures were made to include both muscle and integument.

One year after the operation the patient became pregnant again, but abortion occurred at the end of two months and a half without assignable cause. There was no trace of eventration even when she made great efforts the reunion of the muscles being solid and durable, and there were no morbid phenomena whatever.

This operation, the doctor thinks, is free from danger though it may be difficult in lean subjects where the muscles are very thin. Although he used silk, he advises catgut to prevent the formation of fistulæ.

The after-treatment is the same as in cases of laparotomy, the sutures being gradually removed, beginning not earlier than the ninth day, and the patient should wear an abdominal bandage for two or three months.

Some Therapeutic Measures other than Medicaments.

Johnson, in the Therapeutic Gazette for November 15th, makes a striking plea for substitution where we feel called upon to give a special drug.

Instead of pilocarpine, which is dangerous, use the hot pack, steam or vapor bath, or hot air bath, in begining influenza or threatened eclampsia.

Instead of atropine and camphor or belladonna ointment to "dry up" the secretion of milk, bandage the breast and massage.

Instead of giving opium in acute pleurisy, strap the affected side.

Instead of giving ergot for hemoptysis, try intermittent cold applications, sucking of ice, dry cups to the chest, and absolute rest and morphine.

Instead of rectal injections of chloral and the giving of bromides for convulsions in infants, try cold to the head, the warm (*not hot*) bath, the mustard pack or mustard footbath, flushing the bowels or enema. Of course remove the cause if possible. Pressure on the carotid and absolute rest.

In threatened abortion plug the vagina.

In post-portum hemorrhage pack the uterus with plain sterilized gauze.

Rest in many diseases greatly helps in the restoration of health, absolute if possible, but even comparative rest will do much.

Rupture of a Hydronephrotic Kidney.

Sexton, in the Cincinnati Lancet-Clinic for November 18th, reports a case in which there was severe internal hemorrhage from the walls of a previously unsuspected hydronephrotic kidney. The patient had been kicked by a horse over his kidney seventeen years previously when a slight inflammatory attack caused obstruction, distention and rupture.

The collapse from the internal hemorrhage was rapid, but was relieved temporarily by pressure of the walls of a new formed sac.

The blood decomposed, when it was necessary to open and evacuate about ten pounds of blood clots, pus, etc. The pressure being removed bleeding again set in and it was necessary to do a nephrectomy, but the patient did not rally, and died 92 hours after operation.

Appendicitis.

Meriwether, in the Annals of Gynecology and Pediatry for November, reports 61 cases of appendicitis, 30 of whom were operated upon.

Of the 31 treated medically four died, a mortality of 13 per cent. and if these cases were all traced this mortality rate would be increased.

Of the 30 cases operated upon, three died, a mortality of 10 per cent., and all of these were lost *after* the operation and not *because* of it.

Of the 30 cases treated surgically the average age was 23 3-5 years, the youngest being 5 years, the oldest 55.

Liver dullness was lost in all the pus cases and also in one case where pus was not present.

In one case there was no pus present but the small amount of serum was so virulent that the doctor's hand was infected, producing septic chills and high temperature.

In all the cases the McBurney incision was used, through and through suturing was done in most cases, though he prefers suturing the layers separately and using the subcuticular stitch all of catgut.

After a careful study of these cases he is forced to believe that surgery is the only treatment of this disease.

Of the 27 living cases treated medically, three ruptured into the bowel, two now have masses in their sides, and six have more or less continual pain.

Malaria,

Parker, in the Medical Age for November 10th, quotes a number of writers in a sketch on malaria.

Quinine taken as a preventative for too long or in too large doses may seriously interfere with its proper action during an attack of the disease, besides it has a weakening effect upon the heart and a disorganizing action upon the blood. Hence it should be reserved for the attack or taken in very small doses before hand.

He recalls the malarial fever of the great southwestern desert, with great rolling prairies, dry and hot elevations up to thousands of feet and aseptic atmosphere, and asks where do the germs come from. He decides that it is the infecting ability of flies and mosquitoes.

Women withstand exposure to malarial climates far better than men.

He quotes the old treatment as good, opium one grain, capsicum one grain, quinine ten grains, in the obstinate forms.

He recommends the Brand method of bathing, quinine and iron, Warburg's tincture, cooling drinks and general hygiene as plenty of fresh pure air and clean bedclothing.

Rectal alimentation he thinks worth trying as rectal injections of warm goat's blood

The Effects of Influenza upon the Heart and Circulation.

No ordinary form of endocarditis is brought about by influenza alone says Sansom in the International Medical Magazine for November, but an attack of influenza may greatly aggravate the dangers of a pre-existing rheumatic hrart disease. The effect of influenza upon the heart may induce the condition of rapid heart, nervous dilatation, irregular heart, slow heart, and pain at the heart.

In the treatment of these effects he considers the weak continuous galvanic current the best for tachycardia, combined with simple diet and intermittent administration of digitalis.

For the irregular heart the galvanism may also be used in connection with massage, muscular exercises, baths and bathing.

For slow heart massage of the extremities, 10 ♏. tincture of belladonna three times a day.

Morphia, iodid of sodium, ammonia and arsenic may be used in pain at the heart, though the tendency of this condition is towards a fatal termination.

Early Operations for Appendicitis.

All cases of appendicitis should be operated on as soon as the diagnosis is made with possibly a few exceptions, says Hayden in the Annals of Gynecology and Pediatry for November.

His reasons for so deciding are: first, appendicitis is purely a surgical disease and should be treated accordingly; secondly, there is no known medicine that will either abort or modify the course of the disease; thirdly, nearly all cases recover if operated on before perforation and by operating on all at once you will prevent this complication in a large number; fourthly, up to the present time we have found no symptoms that will enable us to determine the pathological changes going on in the appendix and until we can do this, it is better to operate on all cases.

If all cases are operated on at once, of course some cases will be operated on who would have recovered without the operation, but at the same time many will be operated on, who, without the operation, would have gone on to perforation and peritonitis and death.

The Medical Aspect of Life Insurance.

Several of the insurance companies are now taking what are called damaged or sub-standard lives, says Vanderpoel in the Canada Medical Record for November.

He says that they might have done this sooner, but mortality tables were unavailable by which to compute a rate, however, such tables are now available, and such risks are readily taken.

In former years only persons of a certain class could get insurance in the old line companies and this class consisted of those who were in approximately perfect physical condition, with an ordinary or sheltered avocation and with good family history. The death rate among such could be safely and easily reached, hence a premium allowing a good margin could be readily fixed.

It is to be hoped that, those diseased but whose lives are not necessarily shortened thereby may be able to secure policies.

Various forms of heart disease are not incompatible with long life though usually sufficient to throw out an otherwise perfectly healthy man.

A family history of consumption is not now regarded as absolutely fatal, yet the companies are only beginning to accept them.

The Effect of Anesthetics on the Kidneys.

The effects of A. C. E. mixture, Schleich's mixture, nitrous oxide, and anesthol, on the kidneys are given by Kemp in a continued article on the subject in the New York Medical Journal for November 25th,

The A. C. E. mixture shows the same effect as chloroform; Schleich's mixture acts very much like ether. Nitrous oxide contracts the renal vessels but seems to have no specific effect upon the kidney.

Anesthol by the open method had about the same effect as chloroform so far as the tracings went, but the renal secretion was completely shut off immediately after its use was begun. This bad effect of the anesthol is attributed to the presence of ethyl chloride.

Chronic Interstitial Mastitis.

Martin, in the Therapeutic Gazette for November 15th, reports a case of bilateral chronic interstitial mastitis which was cured by operation.

The patient was a female, age 38; personal and family history negative. The principal symptom was a dull pain, referred to the middle of the sternum, at times stabbing and lancinating in character shooting down the arms to the fingers,

The pain was always worse at the menstrual period. The breast grew gradually harder and was removed together with the axillary and subclavicular glands, complete cessation of all pain for four months. The pain returning, together with failing of general health, the other breast was removed without the glands.

Following this there was immediate and permanent relief from pain. She has gained in four years over 50 pounds in weight and has been in perfect health. Examination of the tumors showed almost pure fibrous tissue.

Conservatism in the Treatment of Appendicitis.

Saunders, in the Hot Springs Medical Journal for November 15th, discusses real conservatism in the treatment of appendicitis.

To treat all cases surgically is too radical; to treat all cases medically is also too radical. The golden mean lies in treating certain cases surgically and other cases medically.

He calls attention to the fact that the public looks on a case of appendicitis as a case of appendicitis, recognizing no varieties or grades,and if a case operated on dies and one not operated on gets well, they consider the operaton as the offence and stone of stumbling.

The surgical treatment of appendicitis depends upon the character of the disease and the character of the surgeon, if both are bad it is well to desist.

He says that cases should not be operated on between the 3d and 8th or 9th day. Either operate before the 3d or after the 9th day.

Do not use opium in any class of cases.

The Ethmoid Bone and Nasal Catarrh.

The intimate connection between this bone and the cavity of the nose and accessory sinuses, is pointed out by Sumner in the Journal of Medicine and Science for November. The peculiar cellular construction of this bone makes it of more than ordinary interest, and its articulation with numerous other bones must be effected before it is complete. Its relation to vital cavities which it goes to form is also close.

He considers catarrhal condition of the posterior cells as amenable only to palliative treatment, but in disease of the anterior cells and frontal sinus it may be most successfully treated surgically by obliteration, and destruction of the sinus and anterior cells forming its floor.

Electro-Massage.

Even the deep abdominal muscles are capable of stimulation by the electric current, according to King in the Journal of Electro-Therapeutics for December.

He states that one must have nine different kinds of currents with the proper apparatus to readily change from one to the other, without changing the position of the electrodes on the patient.

He uses a continuous, an interrupted and an alternating galvanic current; an intermitted faradic current, primary and secondary induced; ordinary faradic; intermitting and alternating faradic wherein the period of current flow is shorter than the interval occupied in changing the polarity. Also, an alternating galvanic current, wherein the period of current flow is shorter than the interval occupied in changing the polarity.

An alternating faradic current, wherein the period of flow toward the anode is equal to an interval of rest wherein the cathode becomes the anode.

An alternating galvanic current with equal periods of flow and rest.

These alternating faradic currents are more stimulating and much less painful than the "long, fine wire."

Prostitution in the United States.

The municipal care and control of prostitution is the best prophylaxis for veneral diseases, according to Dyer in the New Orleans Medical and Surgical Journal for December.

He states that there is a woeful lack of municipal supervision, knowledge and control of prostitution and veneral diseases in this country, and that there is indifference on the part of the general public to this important question. In almost all cities it is relegated to the police department where it is classed with vices, crime and nuisances. He says that prostitution should be tolerated, licensed and recognized as a necessity to a civilized community, so long as laws are made differently for men and women. If no restriction is put upon the male sexualist, then no *criminal* restriction should be put on women of the same class.

A police record should be kept of all houses, and systematic supervision of residences, regular houses and others.

There should be a regular police inspection and record of public resorts frequented by this class, with special reference to arrests made at such places.

A monthly report should be had from every practicing physician of all venereal diseases in his practice.

Regular *voluntary* examinations which would provoke a desire for wellbeing among prostitutes if the examinations could be conducted with some degree of privacy.

The hospital treatment of all cases providing segregation, sanitation and quarantine. Some provision is necessary to enable the hospitals to take care of walking cases of these diseases.

The prevention of prostitution will never be. A prostitute is of exactly the same enforced morbid type as one sick with a distinct disease. The day has gone when victims of smallpox, or other diseases are driven as a scourge out of a community, to die or to live according as their vitality keeps. In Siberia, it is true, the leper is fed by throwing his food to him, but Siberia is not civilized.

To-day every disease is treated with care and by improving conditions.

Other conditions of society, pauperism, crime, ignorance, are all being met and combatted, more with care than with brutal enforcement of generalizing community and statutory laws.

Prostitution is not a greater evil than some of these, and environmental conditions and influences can just as well ameliorate or *cure* it as *they can produce it.*

The Operative Treatment of Cancer of the Uterus.

Montgomery, in the Pennsylvania Medical Journal for November, answers the question "what can we promise from operative treatment of cancer of the uterus?"

He states that a proper and satisfactory answer depends upon: an intimate knowledge of the causes producing cancer; a thorough acquaintance with its pathology and course of development; an accurate diagnosis to determine, that the condition under consideration is really cancer, the extent of invasion and the method of operating. Afrer a careful study of these dependencies he concludes that cancer of the uterus is a local disease in its origin, which tends to invade the neighboring structures, but extends to the corresponding lymphatic glands much more slowly than in other parts of the body.

The chief dangers of relapse are from nests in the adjoining tissues which have escaped removal, and reimplantation of fragments during the progress of the operation.

The data at our command forms no accurate basis upon which to establish definite or positive prognosis.

From our present knowledge, we must depend upon the subsequent progress to de-

termine the cure. If relapse occurs it will most likely take place within the first six months. Should the patient escape two years, cure may be considered as having been established.

Pelvic Inflammatory Disease.

In discussing the removal of septic inflammatory conditions in the pelvis Cordier in the Medical Monograph for October 15th, says that the vaginal-route operation is not an easy one, nor can it be as quickly performed as the supra-pubic.

Hemorrhage can nearly always be better controlled by the abdominal route.

The diagnostic help of the upper method is sometimes of the most importance. Oftentimes it is necessary to open the abdomen above after beginning by the vaginal route and in the hurry, especially if for hemorrhage, we are not as careful as to cleanliness as we should be.

A woman will get well no faster, as the abdominal wound properly made and treated will heal as quickly as one in the vaginal vault.

He states that not a week ago, in breaking up universal adhesions, the appendix (which was diseased) pulled off at its cæcal end, leaving a ragged opening into the cæcum. The discovery and closure of the bowel injury saved his patient. Others have had similar experiences.

Resection of the Liver for Neoplasm.

Keen, in the Pennsylvania Medical Journal for November, reports a case in which the entire left lobe of the liver was removed for carcinoma, the patient making a good recovery. The liver tissue was cut with the Pacquelin cautery, but several large veins had to be tied, the ligature being passed around with a needle and drawn tight slowly.

The raw surface of the liver left measured $5\frac{1}{2}$ inches by $2\frac{3}{8}$ inches, part of which was closed by drawing down the flaps with catgut.

The recovery was uneventful except for 48 hours vomiting immediately after the operation. Bile escaped from the wound until the twelfth day.

Compound Fractures of the Radius and Ulna.

Hitchcock, in the Medical Age for November 25th, reports a case of fracture of the forearm in which the fragment were united directly by means of silver wire.

The result was perfect as shown by an X Ray photograph taken after healing was complete.

The Radical Cure of Varicosities of the Internal Saphenous Vein.

Fowler, in the Brooklyn Medical Journal for December, describes a modified Cesati's operation for varicosities of the internal saphenous vein.

His procedure is as follows:

First, the internal saphenous vein is exposed at the saphenous opening, isolated, ligated, sectioned, and the skin incision closed with a linen subcuticular suture. Second, the vein is identified just below the level of the knee-joint. A skin incision one inch in length is made down to it and a piece of cat-gut passed around it for purposes of traction. It is isolated as far in an upward direction as possible by introducing the long slender handle of a scalpel along its course beneath the skin. This is facilitated by putting the vein upon the stretch. The vein is strongly attached so that it gives way at the uppermost point. The isolation of the vein is then carried on in a downward direction as far as may be. It is put upon the stretch. This causes it to become prominent for the whole length of the leg. A second incison one inch in length is made over the course of the vein a few inches below the junction of the middle with the lower third of the leg, so as to escape pressue from the shoe-top upon any scar which might result. The vein is brought into this incision, isolated as far as possible in a downward direction and attracted so as to cause it to give way at the lowermost possible point.

Isolation is then carried in an upward direction as far as may be. We now have two small incisions through each of which protrude three or four inches of the internal saphenous vein. The vein is still held by some few attachments at a point midway between the two incisions. By alternately attracting first one of the free ends of the vein and then the other, these points of attachment are gradually loosened and the entire vein removed, as one would withdraw a catheter from the bladder. A half-inch incision is carried down to the external saphenous vein midway between the knee and the ankle. The vein is isolated as far in an upward direction as possible, and traction put upon it until it gives at the heighest possible point, The same procedure is repeated in a downward direction and the vein withdrawn, Hemorrhage from the torn tributary veins is as a rule inconsiderable and stops spontaneously. In any event the pressure of the dressing is amply sufficient to control it. The skin incisions are closed with linen subcuticular sutures and dressed. The entire limb is bandaged firmly from the toes up and ended

with a spica of the thigh and pelvis, in order to securely retain the dressing over the site of ligation at the saphenous opening. In addition, the limb is placed upon a Volkmann splint and securely bandaged to it. At the end of one week the sutures are removed and the patient allowed to walk about with extremity snugly bandaged.

He states that the facility with which this procedure can be carried out is surprising. It has met with uniform success thus far in the few cases in which he has employed it. In putting traction upon the veins the fingers should be used to grasp the vein and it should be attracted in the long axis of its course.

To repeat, the points in the procedure are: (1) Ligation and section of the internal saphenous vein at the saphenous opening. (2) Complete excision through two one-half-inch incisions of the entire internal saphenous vein below the knee. (3) Excision of the greater portion of the external saphenous vein through a one-half-inch incision.

Electricity in Digestive Disorders.

In cases of atonic dyspepsia, dilatation of the stomach and similar conditions, the internal application of electricity every second day will give decided relief according to Case in the Journal of Electro-Therapeutics for December.

In cases of nervous vomiting the external treatment alone is sufficient. The faradic current is used with one electrode over the seventh cervical vertebra and the other over the stomach:

For the pain of indigestion he recommends the interrupted galvanic.

Obstinate constipation may be often relieved by a sharp spray from a powerful static machine, and he states that this spark treatment is far preferable to the faradic or even the sinusoidal.

Of course attention to diet is important as neither electricity nor any other remedy will keep a person from getting sick if he transgresses the laws of health.

Ankylosis of Both Temporo-Maxillary Joints.

Clarke, in the Hospital for October 7th, reports a case of true ankylosis arising from inflammation probably of a pyemic character, involving both temporo-maxillary joints. The patient was a female, aged 32, and for 2½ years had no power of movement in the lower jaw.

The condition was completely relieved by an operation, removing about half an inch of the neck of the inferior maxilla close to the condyle on each side.

The Gighli saw was used together with forceps in dividing the bone so as to avoid injury to any of the soft parts.

It is found to be necessary to take out a portion of the continuity of the bone in these cases, as the simple section is not sufficient.

Night-Blindness.

Hailes, in the Hospital for November 25th, says that this condition is caused by exposure to very bright light, as the tropical sun or even bright artificial light.

In connection with the light there is usually a run down condition of the system as a cause, This condition is not attended with photophobia, thus differing from snow-blindness.

Night-blindness is the prominent symptom in retinitis pigmentosa, but in this form there is permanent narrowing of the field of vision and the ophthalmoscope shows the retinal pigment.

In the idiopathic form, the eye examination is usually negative as the trouble is functional.

The treatment is simply to rest the eyes by darkened glasses, change of work with good food and tonics.

In another class of cases where there is torpor of the retina, the night-blindness is due to lack of stimulation and might be partly benefitted by an iridectomy.

The Radical Operation for Spina Bifida.

A report of a case, with a plea for the radical operation, is made by Reid in the International Journal of Surgery for December.

The child was one year old, tumor size of an orange, congenital, central position, changing size with the position of the head, translucent appearance, and at the base the bony margins of the spinal canal could be felt.

Nine ounces of the fluid was withdrawn daily for three consecutive days with an ordinary syringe. On the third day the sac had become loose and flabby, and under chloroform the operation was performed. The sac was dissected out and excised close to the pedicle, the edges being immediately stitched together with fine catgut.

The stump was turned into the opening, the periosteum freshened with a Volkman spoon and the usual dressings completed with plaster Paris jacket which was left on for fourteen weeks.

Two years after the operation everything was in perfect condition.

Sanatoria in the Open-Air Treatment of Tuberculosis.

According to the Hospital for November 18th there was quite a discussion at the Royal Medical and Chirurgical Society on the open-air treatment of consumption as it is given at certain sanitoria.

Allbutt said that the treatment by open-air was one thing, but the treatment by draught was quite another.

He described some of the treatment rooms as "careering-grounds for all the winds of heaven." and such exposure to cold had a decidedly depressing effect on the patient.

Fowler called attention to the fact that many of the so-called sanatoria were nothing more than large hotels with a physician in attendance, the patients doing as they pleased.

To take so many hours of "open-air," and then spend the rest of the day in a close, hot room, is not proper treatment at all. The proper system is one of somewhat full feeding; of life in the open-air as far as may be, and in clean air within doors; of graduated exercise, and of careful and constant medical supervision.

Hemorrhoids and Their Treatment.

The advantages of the clamp and cautery operation, says Irwin in the North Carolina Medical Journal for November 20th, are: it is easy to perform, can be quickly and safely done, is less painful, and the healing is much more rapid than the ligature method.

He states that the longest confinement of any case operated on by the clamp and cautery was ten days.

His objection to the Whitehead operation is that it destroys the complicated nervous mechanism of the lower part of the rectum and thus interferes seriously with the regularity of defecation.

In deciding between rival operations he gives the following rule: 'Put in the first rank efficiency; second, safety; third, facility; fourth, gentleness.

His preparation of the patient is careful and thorough.

The Plague Ship and Her Cargo.

The yellow press has taken on a more saffron hue lately as the result of detention in quarantine at New York of a plague infected ship, the John W. Taylor, loaded with coffee in sacks.

On board this ship two passengers are found convalescent from bubonic fever.

Immediately the sensational newspapers sent out all on the force who could write and ordered by telegraph a car load of lead pencils, being determined to save the country at all hazards.

Of course we do not want the plague in New York City and we hardly think it will get there.

The New York Medical Journal in its issue for December 2d, says it is not afraid of the coffee or the rats, as the ship has been thoroughly disinfected, but suggests that the coffee should be roasted before being sent up to the city.

Dr. Doty and his board of health know their business, and we feel along with the N. Y. Journal that they can be trusted to do all that is necessary. Besides it is simply because this is a new and unknown disease that some people get on their ear. Typhoid will kill more in a month than the plague will in a year and yet there is actual indifference in regard to repeated warnings concerning typhoid fever.

If the plague and the yellow journals could only fight it out in some isolated place, it would be well for the country, though we fear the plague would not live to tell the tale.

Milk as a Carrier of Infection

Diptheria and typhoid fever are frequently communicated in milk according to Probst, in Medicine for December.

He says that any of the waterborne diseases may be carried by milk, as water is the most common adulterant.

But not only may milk be contaminated after leaving the cow, as oftentimes it is infected when in the udder.

Tuberculosis is most to be feared in disease of the cow and he states that it is possible for the milk to be tuberculous though the udder be healthy.

The milk trade can only be properly regulated by the permit system with thorough inspection, the remodeling of cow stables and the hearty cooperation of the dairymen.

Pyloroplasty for Stricture of the Pylorus.

Three cases of stricture of the pylorus successfully treated by surgical means are reported by Richardson in the Boston Medical and Surgical Journal for November 30th.

In the first two cases the Heinecke-Mikulicz or linear operation was done, but the author does not like it as well as the V-shaped excision, especially in cases where the cicatrix is hard.

In the third case a good sized V-shaped piece of the constriction was removed and the patient was discharged much relieved, and when last heard from was doing well.

X Rays in Injuries of the Head.

The presence of so much bone about the head gives a uniformly dark picture with the X rays, but Rudis-Jicinsky, in the New York Medical Journal for December 2d, says that it is possible to detect fracture of the bones of the head in from five to ten seconds.

Shots may be detected behind the bone, hematoma may be distinguished from bone and a bullet was shown behind the orbit lodged in the right wing of the spenoid. He emphasizes the fact that we should make short exposures, remember the obliqueness of the rays and try to get a life-size piature.

Vulvo-Vaginal Catarrh in Children.

Huber, in Pediatrics for December 1st, divides this disease into two practical classes, the simple and the infectious.

He then discusses the gonorrheal infectious form at length.

It may occur at any age, usually accidental, though it may be venereal or follow criminal assaults.

Infection is easily transmitted by sponges, towels, bed clothing, etc.

Ophthalmia, adenitis may complicate the case or the inflammation may spread to the kidneys by the urinary tract or even to the peritoneum by way of the uterus, tubes and ovary.

Finally infection may take place through the blood causing general sepsis.

Patients should be isolated and quarantined.

In the early stage absolute rest and cold applications; alkalinize the urine and keep on light diet, irrigations two or three times daily carefully made, of permanganate of potash, nitrate of silver, sulphate of zinc or carbolic acid.

The mercuric bichloride should not be used. Warm sitz baths for the ardor urinæ and vesical tenesmus. The dressings should not be thrown away but burned.

Treatment must be continued as long as the microscope shows the coccus.

Microbes and Cold.

The activity of all microbes is inhibited by cold, but it is due in great part to the effect of cold upon the nutritive media in which these germs feed, says Vitale in the Medical News for December 2d. It is well known that the typhoid bacilli survived an exposure on the snow of 113 days and so cold may only prevent propagation and development without causing the death of the germ.

He emphasizes the point that in experiments with microorganisms the conditions are artificial and the nutritive material is not the same as in nature, hence the conclusions may be misleading.

Some germs, as of typhoid, are rendered more virulent by laboratory cultivation, while others, as of cholera, become markedly weaker.

The gonococcus is very sensible to cold, dying in a few hours at 59 F.

We may say, then, that the temperature exerts an influence on microbes which bears a direct relation to the media in which they are being cultivated and the resistance they offer is just so much greater as the media on which they live, whether they be natural or artificial, are favorable to the vitality of the microbes.

Intestinal Obstruction.

Merz, in the Columbus Medical Journal for November 5th, reports a case of intestinal obstruction in a man, age 65, having lasted for three weeks.

As the patient had already been given all kinds and doses of the most powerful cathartics some new method and medicament was necessary. So the author used a half-gallon enema of soap-suds with inversion by the heels and shaking.

The latter part of the treatment was given by the patient's two sons, who were stout and lusty. In fifteen minutes a large quantity of fecal matter was passed without pain and all distressing symptoms at once disappeared.

Post-operative Treatment of Club-Foot.

The necessity of post-operative treatment of club-foot is strongly emphasized by Taylor in the Maryland Medical Journal for December 2d.

He reports three cases that had tenotomies done in infancy and had worn plaster-paris casts for a month or more, and that ended the treatment for them. In six months or a year they are found worse than before the operation. He advises the use of the club-foot shoe as soon as the plaster cast is removed, and this must be worn until all danger of relapse has past.

Any surgeon who is conversant with the anatomy of the foot and the pathology of congenital talipes equino-varus can correct this deformity, but the work of the best surgeons will be worse than useless if correction is not maintained by a suitable ambulatory brace for months afterwards.

To prevent the recurrence of varus three points of pressure must be on the brace, viz., at the metatarso-phalangeal articulation of the great toe, at the inner side of

the heel and at the calcaneo-cuboid articulation on the outer side of the foot.

There must be a stop-joint at the ankle to prevent a recurrence of the equinus.

To prevent supination of the foot the inner side of the brace and shoe must be lower than the outer.

Any mutiliting operations to the bony framework of the foot, such as the removal of the astragulus, cannot be too highly condemned as contrary to the best interests of the patient.

Obliteration of the Recepticulum Chyli.

Smith, in the Medical Record for December 2d, is of the opinion that this condition may be diagnosticated, and states that the very rapid emaciation not otherwise explained should make us suspicious. If in addition there are rather copious, pale, semi-fluid passages from the bowels, we may feel sure of the case.

He reports two cases, one of which was cancer of the stomach, involving the posterior wall, but the mucous surface was not much implicated, nor was there stenosis of the pylorus, yet there was extremely rapid emaciation and on autopsy the receptaculum chyli was completely obliterated.

In President Garfield's case he thinks that the rapid emaciation, in spite of the fact that considerable food was taken, was due to the pressure of the inflammatory exudate upon the receptaculum chyii.

In obstruction, chyle not only escapes by the bowels, but it may be thrown out in the thorax or abdominal cavity.

Chronic Stiffness of the Vertebral Column

Three cases of this condition are reported by Dana in the Medical News for November 25th.

From the history of these cases it would appear that there are two different types of this disease, in one, the spondylosis rhizomelia of Marie, the malady begins in the hips, gradually extending to the spine and shoulders; in the other the disease begins in the spine with considerable intercostal pain, and no involvement of the hip and shoulders. This latter Marie calls the "hereditary traumatic type.

The author candidly states that the case for a specifically new malady does not seem to him made out, but that spondylosis rhizomelia is after all only a form of arthritis deformans, while the other type, to judge from the reported cases, suggest the same etiology, symptomatology and progress as arthritis deformans in some cases, in the rest, syphilitic meningitis.

Christian Science and the Laws.

Ellinger, in the Medico-Legal Journal for September, discusses the relationship of Christian Science to the Law.

In the first place, he states that Christian Science is a misnomer, totally unjustifiable as science is neither Christian Jewish, Mohammedan or Agnostic, but universal.

But so long as their practices do not interfere with the rights of their neighbor, and do not endanger public health and morals nobody objects.

The law insists upon the production of a diploma by the medical practitioner, issued by a recognized scientific authority. Christian Science has not been recognized as a scientific body. The law makes it the sworn duty of all physicians to bring to the notice of the sanitary authorities all cases of a contagious or infectious character. To allow this law to be disregarded and disobeyed is to invite the spread of disease and a carnival of death.

The man who has no faith in the so-called Christian Science must be protected against the man who has and at the same time has a contagious disease in his family. The law should be effective in giving him this protection.

The Treatment of Itching.

Of all the lotions those containing carbolic acid are the most useful, says Evans in Treatment for October 26th, and the best strength is 1 to 60.

The sedative action of alkalies may be added to the mixture with benefit.

If the area affected is small then ointments of carbolic acid are preferable to lotions.

Next to carbolic acid he places ichthyol, resorcin, betanapthol and mercury.

For pruritus ani he recommends a suppository of cocaine, or cocaine and morphine.

Among curative agents, baths take first place, they should contain carbonate, or bicarbonate of soda, starch or bran, or linseed meal.

In severe cases the continuous baths may be used with benefit, and in some cases Turkish or vapor baths give great relief.

Conjunctivitis.

Conjunctivitis is the result of a neurosis, a susceptibility and a contagion according to Graves in the Western Medical Journal for November.

For prevention he lays stress upon cleanliness. Such things as dust, dirt and tobacco smoke he regards as means of intro troducing the germ.

Tertiary Syphilis of the Skin.

From 5 to 15 per cent. of all cases of syphilis continue into the tertiary stage, according to Frick in the Kansas City Medical Record for November, and not more than half of these have syphilis of the skin.

Tertiary syphilis is essentially a deep and destructive syphilis, and when the skin is the seat of the lesions it suffers from the destructiveness of the process.

In tertiary lesions the essential elements are the same as in the secondary, namely, the embryonic cells which are infiltrated into the connective tissue.

For the treatment of tertiary syphilis of the skin he uses the iodide, beginning with ten grain doses, the amount is gradually increased as may be necessary to 60 or even 90 grains.

Tabes Dorsalis.

The pathology, diagnosis and treatment of this disease are discussed by Dana in the Medical Record for November 18th.

He states that the disease is not an inflammation or the result of an inflammation but a selective degeneration of the posterior spinal roots and their termination. Such changes are usually segmental, affecting serially certain segments of the cord.

It is not due to a syphilitic or any other kind of meningitis compressing the roots.

The syphilitic nature of this disease does not exist.

He considers two important factors in the causation to be heredity and over use or abuse of the spinal cord.

The cardinal symptoms are lightning pains, loss of knee jerk, Argyll-Robertson pupil, ataxic gait, bladder disturbances and paraesthesia of the extremities.

As unusual modes of onset there may be rectal crises, neuralgic or gastric crises, or the disease may take an arthropathic type, sudden, painless swelling of the joint; the optic or the syphilitic type, in the latter the disease is complicated with the manifestations of secondary syphilis.

As for treatment, he advised an antisyphilitic treatment only in those cases having a distinct history of primary or secondary syphilis.

Mercury should be given as corrosive sublimate in 1-20 gr. doses once a day or twice if the symptoms are urgent, hypodermically.

The iodides are also given, combined with rest, daily warm baths, tonics, counter irritation to the spine. Strichnine and morphine are of decided benefit given together, beginning with small doses, 1-60 of each, gradually increase to 1-15, or even 1-10, rembering that strychnine is dangerous in some cases.

Other drugs are not of much benefit.

Hot baths are dangerous, and electricity may be useful depending on its reception by the patient. Fraenkel's method is recommended when properly carried out.

Tentage for Tropical Service.

Munson, in the Boston Medical and Surgical Journal for November, describes an improved hospital tent for use in the Tropics by which better ventilation and lower temperature are secured.

The improvement consists in the enlargement of the tent fly and its elevation on a false ridge one foot above the true ridge, the cutting out of the top of the tent for a space two feet wide on either side and running the entire length of the true ridge, the canvas thus removed is replaced by heavy rope netting, the tent fly is made of white canvas, while the tent itself is of dark canvas. The common wall tent, an account of its size and lack of fly, is totally unsuited for use in the Tropics.

The Connection between Antitoxin Serum and Albuminuria.

Dr. P. W. Williams in a recent issue of the Hospital says: Personally I have never been able to trace any connection between serum injections and nephritis, but certainly in does appear to cause transient albuminuria. This question has been investigated both clinically and experimentally by Siegert. He finds that after the injections there occurs a generally a slight transitory albuminuria and albumosuria; this was found, not only in patients already suffering from diphtheria, but also in healthy children in whom the antitoxin was injected as a prophylactic measure. In animals the injection produced similar change in the urine and also a diminution in its quantity and specific gravity. In some cases acute parenchymatous and hemorrhagic nephritis occurred in patients treated with the serum, but there was no evidence that this occurred unless some changes had taken place in the serum used. Occasionally anuria occurred after the injection, and the same phenomenon was observed in animals. If albuminuria be already present in a case of diphtheria the injection of antitoxin generally causes the albuminuria to disappear without evil consequences. That the alterations in the urine are generally due to mere functional disturbance in the kidney seems to be shown by the fact that even with 10 c.cm, of Behring's serum no organic

lesion of the kidney could be produced in rabits.

Goodall records three cases of post-scarlatinal nephritis at the Eastern Fever Hospitals. In cases 1 and 2 the patients were actually suffering from nephritis when the serum was injected, and the renal inflammation was in no way aggravated; quite the contrary, in fact, in case 2. In case 3 the patient had apparently recovered from the nephritis, but there was a recurrence of the nephritis subsequent to the injection of the antitoxin.

Acetanilide in Post-partum Pyrexia.

Dr. Peck, according to the New York Medical Journal presented a paper to the British Medical Association on Fever following Delivery, said that coming from India, he had seen a great deal of pyrexia and had used a number of antipyretics. In certain cases, no doubt, the usual antipyretics were very badly borne, and might doubtless cause a dangerous degree of exhaustion and depression. In other cases, however, they diminished the danger and discomfort of high temperature, and placed the patient in a better condition to weather the storm. He remembered a case of his own that occured in India a few years ago. The treatment was practically confined to the administration of acetanilide whenever the temperature reached 104 deg. F. The case was a bad one, and the patient's condition remained critical for ten days. She experienced extreme discomfort and exhaustion whenever her temperature rose, and the administration of acetanilide reduced the temperature and enabled her to take nourishment and obtained rest until the poison had all been eliminated.

The Osborn Treatment of Smallpox.

In the Texas Medical Journal for December, Osborn brings forward additional evidence as to the value of bichloride solution in the treatment of smallpox.

He considers the disease a typical skin affection due to a specific germ, and that strong bichloride solutions are the most reliable.

Peroxide of hydrogen spray is used in the facial cavities.

Thirty grains of hyposulphite of sodium is given once daily, and a whiskey toddy two or more times a day.

The bichloride baths, if properly used, will abort the disease, as his reports will show.

The same principle he has also successfully used in varicella and scarlatina.

An Undoubted Case of Superfœtation.

Herz (Medical Review of Reviews) describes the case of a woman, aged tweny-two years, married for the past year. Menstruated several times after marriage, but amount scanty. Menses ceased at fifth months after marriage.

The time of the first menstruation after marriage was in mid-December, 1897; on September 21, 1898, the patient bore a healthy, fully developed child. In delivering the placenta the midwife's hand encountered an object within the uterus which she believed to be a second fœtus Nothing further was expelled, however, and the patient made the usual recovery. Upon getting up, the presence of a uterine tumor was readily made out.

Six weeks after the birth of the first child the mother again felt life; in fact, none of her people appeared to have any doubt that a second fœtus was in the womb. The health, which had unmistakably failed at the time of the actual cessation of the menses, had become strikingly worse after the birth of the first child. Herz first saw the patient on January 18, 1899 (four months after birth of the child), diagnosticated superfœtation, and proceeded expectantly. The patient, however, became worse, and died on February 10th, in the ninth month of the pregnancy. Her people made no attempt to send for medical aid, on superstitious grounds, although emptying the uterus might have saved the mother. Death occurred from suffocation. The most severe symptoms during life had been edema of legs, dyspnœa, and refusal of nourishment.

Phenylhydrazin as a Test for Sugar in the Urine.

Dr. Coriat in the Boston Medical and Surgical Journal, says that phenylhydrazin forms in combination with different sugars crystals, which in every case have a definite morphology, so that each sugar can be recognized by these crystals alone. Other substances, such as urea, uric acid, hippuric acid, creatinin, etc., which interfere with the ordinary clinical tests for sugar, do not affect this test.

To apply the phenylhydrazin test to the urine, take twenty-five cubic centimetres of urine in a small beaker, and add one gramme of phenylhydrazin and two grammes of sodium acetate, Heat over the water bath for from thirty minutes to an hour, and then cool by plunging the beaker in cold water. A yellow crystalline deposit is thrown down, which on examination by the microscope is found to consist of the

yellow crystals of phenylglucosazine if this sugar is present.

An excess of phenylhydrazin must be present in order that the crystals may be formed. He draws the following conclusions: 1. Phenylhydrazin forms with the reducing sugars crystalline chemical compounds, each having an individual and definite morphology. 2. Albumin need not be removed. 3. It is possible to recognize any of the sugars by their crystalline forms alone, without recourse to their melting points. 4. Substances that interfere with Fehling's or Nylander's reagents do not interfere with this test, or form anything that would in any way be misleading. 5. The test is an extremely delicate one, and of undoubted accuracy.

Treatment of the Acute Form of Gonorrheal Salpingitis.

W. J. Taylor, in the Clinical Journal, points out that in the acute forms of gonorrheal salpingitis, when specific vaginitis and endomitritis are also present, and in gonorrheal vaginitis when it may still be possible to limit the upwârd spread of the disease, local treatment is of very great, and indeed of primary importance. As regards the gonococcus the strongest and best local germicides known are the nitrate of silver, the perchloride of mercury, and ichthyol. In all cases of acute gonorrheal salpingitis in which the uterus and vagina are also affected he recommends a vaginal suppository of ichthyol (10 per cent.) every night, and a douche of crude acetic acid during the day. If, as only very rarely happens, the patient comes almost immediately after exposure to contagion it may be advisable to disinfect the vulva, vagina, and cervix manually as in a vaginal cœliotomy. No unnecessary examinations should be made, and the use of the sound should be forbidden as most dangerous.

A Case of Congenital Impotence.

Belkowsky, according to the New York Medical Journal, has described a case of a man who, although married for four years, had never been able to perform the sexual act. In spite of the fact that his genitals were normal in development and his general bodily condition was excellent, he was totally devoid of sexual sensations, had never in his life had erections, and only quite lately had he had some nocturnal emissions, accompanied, however, by only imperfect erections. He was totally indifferent to the female sex, but no trace of sexual perversion could be observed.

Heart Lesions.

Cotton, in Archives of Pediatrics for December, reports an interesting case of heart disease of difficult diagnosis in a boy aged 11. Death took place suddenly and on autopsy there was found pulmonary stenosis with acute mural endocarditis and defective ventricular septum.

The ante-mortem examination showed apex beat in the fourth interspace, one finger's breadth outside mammillary line. Pulsation of lower portion of sternum and epigastrium.

Palpation—Apex beat in fourth space and a finger's breadth outside nipple. Marked systolic thrill, also felt over lower part of sternum. It increases in intensity toward the base and reaches its greatest intensity in the second interspace to the left of the sternum.

Percussion—Upper border—absolute dulness at third rib. Right border—at level of fourth rib, two fingers' breadth to right of right sternal border. At level of fifth rib, two and one-half fingers' breadth to right of right sternal border. Lower portion of sternum very dull. Left border corresponds to apex.

Auscultation—Harsh systolic murmur heard all over the chest but loudest in second left interspace. At this point the second sound is not distinguishable.

Typhoid Fever as seen in Bellevue Hospital

Smith, in Medical News, December 9th, reports 104 cases as treated in one of the medical divisions of Bellevue.

The mortality rate was 9.6 per cent.

Fifty-four were from 20 to 30 years, 12 from 30 to 40, and 4 over 40 years old.

Diarrhea present in 50 to 57 per cent.; constipation in 20 to 24; regular, 15 per cent.

Epistaxis in 41 per cent.

Eruption present in 77 per cent., and enlarged spleen in the same proportion.

Widal's reaction present in 82 per cent.

In four of the cases there was pregnancy, all recovering without abortion.

The actual causes of death were perforation, 2; pneumonia, 1; excessive high temperature, 2; laryngitis with edema glottidis, 1; peritonitis, 1. The highest temperature was 106⅘.

Baths were used in 48 cases, the average number being 20, though they ranged from 2 to 92.

In the beginning a dose of calomel, followed by a saline. For tympanites, salol or betanaphthol; for diarrhea, bismuth; as stimulants, whiskey, strychnine and caffein.

Milk was the principal article of diet.

The Therapeutic Value of Alcohol.

Dr. T. J. Hills at the recent meeting of the New York State Medical Society presented a paper with this title. He said there had been a good deal of talk, mostly coming from those who were fanatically opposed to its use, and every good effect had been denied to it. Some even went so far as to say that it was not a stimulant. Not long ago Professor Atwater showed that it was used by the system as a food. There was no doubt that in various allotropic modifications which it underwent in the chemical laboratory of the body it developed many other properties beyond that of stimulation. It was a tonic, heat-producting food of the most valuable kind. It had been abused and would be abused, but the abuse of a thing could not logically be argued against the proper use of it.

It was in conditions of fatigue particularly that alcohol was of special service. It was much better than coffee and produced its effect more rapinly. When great fatigue existed it was promptly burned up in the body and did not produce its ordinary intoxicating effect. Under these conditions from eight to ten ounces of it even might be taken and produce only slight stimulation. Like shavings in a glass furnace, it was burned up by the fire of muscular metabolism. Much of the abuse of alcohol by the medical profession had come from the fact that it had been given too early or too late in the course of a disease, or that too much or too little of it had been given. Its administration must not be left to the nurse, but must be assumed by the doctor himself. It must be regulated not according to any fixed rule, but according to the effect produced upon the patient.

The primary factor in the matter was the stomach. If the stomach took food well, then alcohol was not needed; but when food could not be taken, alcohol was of the greatest service. Especially it must never be given if it disturbed the stomach. One day it might be poison in a given case and the next day it might do good. Alcohol should never be taken at the beginning of a journey, for it lowered the temperature and increased the tendency to fatigue. At ihe end of a journey it was usually of very great service. At the beginning of diseases that were accompanied by excitement it would do harm. In exhausted conditions of the patient, especially when nutriment was not taken well, it was of the greatest service. It acted in four minutes, while beef tea required twenty to act and was not as efficient. Alcohol should never be taken immediately after meals, for it paralyzed the digestive ferment, coagulated the albuminoids, relaxed the walls of the stomach, and might stop the progress of digestion entirely. Three hours after digestion, especially if the fatty acids were present, causing the condition known as pyrosis, alcohol would neutralize the fatty acids, stimulate the peristaltic actions of the stomach, and get rid of the uncomfortable feeling.

A Case of Hourglass Stomach.

Cumston, in the New York Medical Journal for December 9th, reports a case of hourglass stomach operated on with recovery.

A diagnosis of dilated stomach was first made, but later on stricture of the pylorus was suspected, as by palpation a somewhat painful mass could be detected in the left hypochondriac region.

An exploratory incision was advised and accepted.

The pylorus was found normal, but the stomach was found strictured at the junction of the lower with the middle third. A Heineke-Mikulicz plastic operation as devised for the pylorus was done and when completed the line of union was about eleven cm. long.

Feeding by the mouth was resumed on the sixth day.

Five weeks after the operation the patient was discharged well.

The Naso-Pharynx in Relation to Aural Disease

According to Conachie, in a paper read before the Medical and Chirurgical Faculty of Maryland, this relation is intimate and the proper treatment of the naso-pharyngeal condition may prevent, control or cure many ear diseases that have hitherto been allowed to pursue their course to permanent hopeless deafness.

The conditions amenable to treatment in this connection are adenoid growths, enlarged tonsils, acute rhinitis, chronic catarrh, atrophic rhinitis, ozena, various nasal tumors, deviations of septum, spurs and echondroses.

Malarial Hematuria.

Hampson, in the Memphis Medical Monthly for December, reports two cases of malarial hematuria treated by transfusion of normal salt solution, both recovering.

In both cases three pints of the solution was transfused into the median basilic vein and in 30 minutes the effect for good was noticeable.

They were continued on Fowler's solution and made rapid recoveries.

The Army Ration.

Smart, in the New York Medical Journal for December 9th, says that the United States Army ration is the most liberal in the world.

He goes further and shows that it is very flexible and that the soldier may exchange his bacon for beef or his candle for peaches if he so desires.

He answers the objection, that the army ration is not suitable for use in the tropics, as it is too rich, by showing how the private by exchange may procure what is suitable.

He says that the private is not forced to eat his bacon, but if the man is hungry from hard work and there is nothing to exchange it for he will certainly eat it, whether he is in Manilla, Cuba, or Northern Alaska.

He shows the clear distinction between *ration* and *diet*. The ration is what the law allows and the diet is what the soldier really eats; and as he well says much depends upon the ability of company officers and cooks.

The Different Phases of Electric Treatment.

In a paper read before the Southern Surgical and Gynecological Association at New Orleans, Gaston gives a general review of electric therapeutics.

Among the later uses of this agent he mentions stimulation of the uterus by the faradic current in long labors, catheterization of the fallopian tubes with the galvanic current in pyosalpinx, X rays in lupus, in securing epilation and in the solution of gall stones, cataphoresis in the treatment of fibroids or sarcoma. For old ulcers Donovan's solution may be used by cataphoresis with good effect.

He shows the power of the agent as a remedial measure to be great, but that much depends upon its skillful and scientific application.

Operation for Typhoid Perforation.

At the New Orleans meeting of the Southern Surgical and Gynecological Association Taylor gives his experience in five cases operated on for perforation.

Four out of the five died, but the one saved was taken as it were out of the very jaws of death.

He quotes Grigg Smith in regard to surgical interference that at the worst, happen what may, the patient can be in no more deplorable condition than before the operative interference was carried out, and I would plead for an attempt to reduce a mortality of one hundred per cent.

The key to success is an early operation.

Alkaloidal Therapeutics.

No matter in what shape we give our drugs, pills, powders, infusions, or what not, it is the effect of the active principle that we want, and then why not give the active principle alone and unhampered.

At the Vermont State Medical Society Gay showed that dosimetric medication is nothing more than the treatment of disease with the alkaloids.

We all do it on a small scale when we give morphine instead of gum opium, strychnine instead of the tincture of nux vomica, atropine instead of the extract of belladonna, but we should use it more and more.

As Dr. Gay well says, we all know by experience the uncertainty of the tinctures and extracts, and the great variation in strength between different makes, the deterioration from age and exposure, and the common sense way to avoid all this is simply to use the active principles themselves where they can be properly isolated.

Whooping Cough and Rickets.

Rickets is a disease concerning the general system and not the bones alone says Lowman in the Cleveland Journal of Medicine for November.

The rickety child is puny and feeble, with weak ligaments. Sweats, anemia, unstable nervous system and tendency to catarrh of the mucous membranes all point to defects in the other tissues of the body.

The author then reports five cases of rickets following prolonged cough.

As for treatment he mentions air, sunshine, oxygen, cool baths, codliver oil, meat juice, good cow's milk and cream. Phosphorus, lime water and iodid of iron. He well says that the underlying cause is too profound for drugs and is more certainly relieved by correctly devised foods, and the potentizing influences of sun and air.

Dystocia Due to the Fetus.

The common cause, as well as the most serious, is intra-uterine hydrocephalus, says Bullock in the American Practitioner and News for November 1st,

Other forms of dropsical effusion may give rise to dystocia as hydrothorax, ascites and a distended bladder.

Tumors and deformities of the fetus or undue development may interfere with normal labor.

He reports a case in which it was almost impossible to extract the fetus on account of the size of the shoulders.

Why is Sugar Injurious?

For three reasons, according to Patchen in the Dietetic and Hygienic Gazette for December.

First, because it is used very often to render palatable articles which by reason of age and decay have become unfit for proper nourishment.

Second, because it interferes with the digestion and assimilation of other kinds of food.

Third, because of its seductive palatability it causes food to be eaten after the physiological limit of supply and demand has been reached.

Among the prominent derangements directly traceable to improper food and its residuals he mentions obesity, billious disorders, jaundice, gall stones, boils, many forms of skin disease, colds, catarrh, spasmodic croup, hives, cholera morbus, lumbago, rheumatism, gout, tonsilitis, dyspepsia, congestion of the liver, colic, diarrhea, apoplexy, Bright's disease, and, in the writer's opinion, pulmonary consumption, hay fever and asthma should be added.

The Physiological Effects of Light.

The sun's rays may be divided into three classes, says Kellogg in Modern Medicine for October.

Heat rays, luminous rays, and actinic or chemical rays, the heat and chemical rays being of special interest in therapeutics.

In Finsen's treatment of lupus the chemical rays are focused upon the affected part while the heat and luminous rays are largely excluded. These rays are separated by a very simple apparatus consisting of a plano-convex bottle from six to ten inches in diameter, filled with a solution of sulphate of copper to which a small quantity of ammonia has been added producing a deep blue color.

The application is made for an hour to an hour and a half each day.

The Treatment of Vesical Tumors.

In speaking of the radical treatment of vesical tumors, Lydstow, in the Journal of the Mississippi State Medical Association, recommends the suprapubic operation in connection with the small electric light. A perineal boutonniere and the insertion of the tube are best as a secondary feature of the operation if hemorrhage is troublesome.

Care should be taken, where there is a suspicion of malignancy, to remove the growth entire with a sufficient amount of vesical mucous membrane.

The Treatment and Feeding of Typhoid Fever.

In a paper read before the North Central Ohio Medical Society, E. F. Wilson says that his list of remedies consists of sulphocarbolates of zinc and sodium, salol, arsenite of copper and salicylate of strontium.

Some one of these is given every three hours after the bowels are thoroughly opened with salts, castor oil, or in some cases calomel.

He considers milk an unsafe food, though he is generous in his diet list, which includes soft boiled egg, milk toast, custard, corn starch, arrowroot, wine jelly, baked apples, fruit juices, tea and crackers, soups, and beef juice.

For diarrhea he uses bismuth; for perforation or hemorrhage, morphine.

His *don'ts* are, nauseating fever mixture, coal tar derivatives, diuretics for retention, and quinine.

Etiology and Significance of Uterine Displacements.

Niles, in the Medical Standard for December, says that impaired mobility of the uterus, with or without displacement, must nearly always mean a lesion above the vault of the vagina, which, of course, can not be corrected by any plastic operation below. And conversely, displacement without loss of mobility is usually due to a lesion within the uterus, or of the vagina, and consequently may often be successfully reached from below.

In estimating the probable existence of this or that cause, we must consider the age, habits and clinical history.

The Board of Health and Its Relation to the City and Medical Profession.

Kime, in the Atlanta Journal-Record of Medicine for December, calls attention to the importance of such boards and their value to the city government in warding off disease and epidemics.

The lack of funds may lower the standard of health and prevent the board from doing its full duty.

He suggests that the board of health should prevent the sale of milk from tuberculous cattle, that it should have a properly equipped chemical and bacteriological laboratory.

And that it should have the hearty support of the profession by the giving in of accurate and regular reports, by prompt and accurate diagnosis in all contagious diseases, and constantly aiding and encouraging.

The Treatment of High Degrees of Myopia.

In a paper recently read before the Leeds and West Riding Medico-Chirurgical Society, Dr. Adolph Bronner (The Hospital) said that one of the most interesting and important advances in ophthalmic surgery during the last few years had been the removal of the lens in cases of high myopia. In regard to the choice of cases he thought that we ought to operate in all cases of myopia in which, with the help of concave glasses. the patient cannot obtain such an amount of vision as to enable him to follow any useful occupation, or in which the use of glasses, although affording serviceable vision, causes severe pain or discomfort. The great objection to the removal of the lens is the possibility of consequent detachment of the retina, which again may to some extent depend upon the degree of skill with which the operation is performed. Then there is the risk of septic inflammation, or glaucoma may set in, or there may be iritis, or anterior or posterior synechiæ. "It is, therefore, ridiculous to say that the operation is quite harmless and not attended by any great risk, as some surgeons assert." On the other hand, a high degree of myopia is itself attended with risk to the eye and is apt to increase, so that in removing the lens in such cases the operation is done not only with the object of procuring better and more serviceable vision but of preventing increase of the myopia.

Night-Terrors, Symptomatic and Idiopathic, with Associated Disorders in Children.

Guthrie (Clinical Journal, June 7, 1899) concludes a paper on the above subject as follows:

1. Night-terrors are always to be regarded as evidence of ill-health.

2. They may be divided into symptomatic and idiopathic night-terrors, according to their origin.

3. Hallucinations of vision are mostly caused by a febrile disturbance.

4. In some cases the content of the dream may throw light on its cause.

5. The character of the dreamer is of more importance than that of the dream.

6. In simple cases simple treatment based on the cause is sufficient; but in idiopathic cases the environment and nature of the patient have also to be considered.

Sedatives are very useful in all kinds of night-terrors: they should be given at bedtime for a few nights. In symptomatic cases paraldehyde in doses of fifteen to twenty minims (for a child of five years) is very effectual. Ammonium bromide may be given in combination with other drugs, such as iron, bismuth, rhubarb, castor-oil, gentian and so on, as the case may be. Cardiac stimulants, or bitter or other tonics, may be combined with bromides. Quinine does not agree with highly neurotic children; it should always be combined with hydrobromic acid.

The Bacterial Treatment of Sewage.

The disposal of the sewage of our larger cities is becoming a serious question in many places.

The water carrier method is exceedingly costly and dangerous to the neighbors.

According to the Hospital for October 21, the sewage experiments which have been carried on for some time back, at Crossness by Dr. Clowes and Dr. Houston, on behalf of the County Council, strongly confirm the opinion that the bacterial treatment of sewage affords the true solution of the difficulties which have so long stood in the way of the universal adoption of the water carriage method of conservancy. Chemical treatment is admitted to be but a makeshift at the best, while irrigation, which at present holds the field, involves the use of very large areas of land, which in some cases cannot possibly be found within reasonable distance of the towns to be drained. Bacterial treatment, on the other hand, requires an amount of land which may be fairly called very small in comparison with what would be wanted for irrigation, while it produces a far better effluent than is given by chemical treatment, and at the same time gets rid of the sludge difficulty. We do not gather from the report what is the manurial value of the effluent, but we should imagine that is would be as great as, if not greater than, that of sewage itself.

Chronic Urticaria of the Throat.

Merx (Medical Age) describes a case of chronic urticaria of the throat. The patient, a neurasthenic, otherwise a healthy individual, was often taken sick with severe pains in the mouth and throat, which were accompanied by salivation and heartburn. The patient first called upon Merx for the removal of the foreign body from his throat, and inspection revealed slight elevations of the mucous membranes of the fauces. The epiglottis and the right as well as the left vocal cords were hyperemic. The soft palate, uvula and tonsils were edematous. The individual had also the characteristic eruption of urticaria on the forehead.

Bacterological Investigations in Whooping-Cough.

Dr. Dinkler (St. Paul Medical Journal) says while working in Heidelberg, found a large number of small bacteria in a case of whooping-cough, which resembled very much the influenza bacillus, but behaved differently on cultivation. The same observations he made in a large number of cases in Aachen. and they were identical with Czaplewski's observations. From the coincidence of the bacteriological results in three different localities, one may conclude them to be an etiological factor. The bacteriological condition showed a marked relationship to the clinical symptoms; the clearer and less complicated the cases were the more numerous the bacteria were present in the sputum, and the easier it was to get a pure culture. In cases where severe bronchial symptoms were predominant, the bacteria were not so numerous, while other microbes were prevalent. In two cases the bacteria could already be demonstrated, while the diagnosis was still doubtful.

Perforation in Typhoid Fever.

In recording a case of typhoid fever in which perforrtion of the cæcum took place, and in which operation was followed by recovery, Dr. Herbert Hawkins and Mr. Thurston (The Hospital) says that in severe cases of typhoid fever it is often impossible to recognise the occurrence of perforation quickly and certainly, but when it can be recognised it is clear that surgical treatment affords an appreciable chance of recovery. Of 105 cases recorded by the several observers mentioned, 22 resulted in recovery. Success appears to depend mainly upon the time at which surgeons can operate, for figures seem to show that the cases which are dealt with in the second twelve hours after perforation are the most favourable, this time corresponding to the recovery from the initial shock.

Potassium Iodide in Threatened Abortion.

Dr. Montgomery (International Medical Magazine) urges the use of potassium iodide in case of threatened abortion even when the history leaves the question of syphilis in doubt. He believes that it is one of the most effective remedies in decreasing the irribility of the uterine mucous membrane. In these cases he administers five grains of potassium iodide three times a day in water after meals He believes also that in cases in which sclerosis or areolar hyperplasia of the uterus has occured no plan of treatment will do more to insure a woman to complete her pregnancy.

Conditions Successfully Treated by Electrolysis.

Hutchins, in the Atlanta Journal-Record of Medicine for December, mentions a number of conditions in which this method is indicated.

Superfluous hairs, moles, small angiomata, an even xanthomata, he has successfully treated.

He considers a milliammeter as absolutely necessary for accurate and safe work. It is also desirable to have a rheostat in circuit so as to obtain finer graduations of current than is possible with simple switchboard.

MISCELLANEOUS.

Correspondence.

A reply to Dr. W. I. Sumner's article on "Some Points on Diagnosis and Treatment of Typhoid Fever," and a defence of hydrotherapy, by J. O. Walker, M. D., Randleman, N. C.

In the first place he says, that he voices the sentiment of the general practitioner when he asserts that we labor in doubt in the first week in many, if not in all, cases of continued fever as to whether it is typhoid. If in doubt in the first, he certainly is in doubt in the second week. I will admit that it is almost impossible to make a clear diagnosis in the first few days in those parts of North Carolina where malaria is prevalent, but in this part of the State 95 per cent. of the cases of continued fever are of the typhoid variety, at least this has been my experience and observation, in a practice of twelve years duration at this place.

The morning remission and the evening exacerbation of temperature is pathognomonic of this fever, especially when the other classical symptoms are present.

The doctor says "the only sure means of an early diagnosis are the microscope and Widal's reaction, and that he is sorry so few are prepared to make such tests." This test is not very accessible to physicians even in large cities, therefore we cannot now avail ourselves of its aid, but we have Ehrlich's test, which is almost as reliable. This test will respond with the urine of nearly 100 per cent. of typhoid fever cases. This test is within the reach of nearly every one, and when in doubt as to your diagnosis, give the patient the benefit of this test, and stop groping blindly, as valuable time may be lost, and the patient well on the road to Abraham's bosom before rational treatment is adopted.

Now to some points as to his method of treating the disease. He says "if he had

any choice in the matter he would choose a large well ventilated apartment for his patient, free from noise and all disturbances, and that nature had here given us a *pointer* by making the patient oblivious to all round about him. We should imitate nature in all things." He means by this I suppose that the patient is *delirious* and incapable of knowing what is going on around him. I, for one, do not believe that nature intended for us as modern physicians to imitate her in any such style. Of course if nothing is done to counteract the deadly toxic material circulating in the blood of the patient, except a few doses of sweet spirits nitre, and that destroyer of "living protoplasm," acetanilide, then no wonder the poor patient is comatose, and with his tongue thick and punctured dark and dry, with sordes on his teeth and gums, and with a heart weakened from overwork." At this stage we need something more powerful than *oil of turpentine*, and if the patient had been bathed systematically from the beginning of the fever, these symptoms would not be present. *It is better to "prevent than to cure."* Instead of seeing in the second week the deplorable picture of the patient the doctor has pointed out above, we should see him with a mind unclouded, with a good pulse, and with a mouth free from sordes, and if the bath treatment is adopted before the fifth day, and if toxic matter is kept eliminated, not by one or two small doses of calomel in the beginning of the disease, but by the daily administaation of small doses of Woodbridge's combination of purgatives and antiseptics, we would have that pleasure.

The doctor says he occasionally administers one of the coal tar derivatives for the purpose of reducing temperature—even if he does combine with his favorite one—caffeine, it does not prevent it (if administered for any length of time) from drying up, as Vinay has shown, the fountain whence most of the products of retrograde metamorphosis must issue from the system, enfeebling the heart and nerve centres, and destroying the hæmoglobin, "thus it damages those vital processes whose maintenance in vigorous function is really the chief aim of all therapeutic endeavor in typhoid fever." Now contrast the cold bath with the above, doctor. "It refreshes the nervous system, it deepens the respiration, it moistens the tongue, it improves the appetite, it steadies and slows the pulse, it increases the quantity and improves the quality of the urine, it removes stupor and delirium. In short, it lends vigor and tone to the entire system, and approximates the condition so nearly to the normal that his entire aspect is changed."

The doctor says he "doubts the superiority of bathing over other lines of treatment, and believes it has sent many to their long homes, and is likely to send as many more." I cannot allow this statement to go unchallenged, because statistics *do not lie*. "Practical observations in thousands of well recorded cases have demonstrated that the systematic application of cold baths have reduced the mortality from typhoid fever to a point below which it will probably never fall. A treatment which shows 1 per cent. mortality in 1223 cases collated from five different sources, including private practice and civil and military hospitals, may be regarded as nearly perfect." Under no other plan of treatment has such results been obtained.

He objects to the Brand treatment, 1st, because it is impracticable for the general practitioner, and dangerous without proper massage, etc., etc.; 2d, because it is dangerous and criminal if left in the hands of a nurse, such as we have in general practice, who are not capable of judging either when it shall be used or when the effect is sufficient to discontinue it, and are not capable of using massage. etc.. etc.; 3d, because of the worry and excitement produced by it on the patient.

His first objection is not a good one, because it is practicable for the general practitioner. All that is necessary to get the full benefit of the bath, is to get a piece of good oil cloth and place under the patient, put a sheet on top of this, have each end supported by assistants. Begin pouring on patient water at the temperature of his body and gradually reduce the temperature to 68 degrees or lower if necessary, in cases hyperpyrexia. Have the body rubbed briskly and continuously with the flat of the hand during the bath, and when the temperature is reduced to 101 degrees, it is best to remove the patient from the bath, as the temperature continues to decline for some time afterward. During the bath,the thermometer, which is in the patient's mouth, should be frequently consulted.

His second objection is not a good one, because if a physician uses the treatment, it is necessary for him to educate his nurse and to do it thoroughly. He should be shown how to use the thermometer, the way to employ friction, how often to bathe the patient, etc. It is not necessary for him to be an experienced masseur, all that is necessary is to rub the body during the time the patient is in the bath, which sufficiently stimulates the cutaneous vessels to dilate, filling them with blood, as is shown by the

suffused redness seen under the hand. Nurses of ordinary intelligence soon learn the technique, and I affirm that it is far safer to leave instruction to bathe a patient as often as temperature reaches 102 2-5 than to have a few 5 gr. powders of acetanilide with instructions to give one every three or four hours if the patient has fever. You are master of the situation when patient is in the bath, but you can never foretell what effect the deadly acetanilide is going to have on the patient's economy.

His third objection is not a good one, because the bath does not worry the patient, does not excite him, and does not produce shock except the kind that is beneficial to him in every way.

"*The chief agent in the treatment of typhoid fever is the cold bath.*"

Newspaper Advertising in Large Cities.

November, 14th, 1899.

My Dear Phelps: Your advertisement in the Chicago Daily News of Nov. 9, has been called to my attention. Why don't you advertise in your own local papers? I should think it would pay better, and it would certainly be less objectionable to some of your friends.

Yours truly,

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62 East Thirty-fourth Street,
New York, November 17, 1899.

My Dear Sir: I am in receipt of your letter of November 14th, and hasten to reply. I am much surprised at the cold-blooded accusation of unprofessional conduct which you make. I am not aware that I had an advertisement in a Chicago or any other paper. Will you be so kind as to send me the paper to which you refer?

I enclose you a reprint of an article which I wrote for a reputable medical journal. In that article I mentioned different remedies which I used in the treatment of certain joint affections. The drug people who happened to be interested in a certain remedy mentioned had one hundred and twenty thousand (120,000) reprints made and sent them to the profession over my signature. I could find no fault if they had not blacked-line the margin of the page where the remedy is alluded to. It cost me six hundred dollars to fight the thing to prevent them from using the article, and I was beaten on the grounds that I had not copyrighted it. This reprint has damaged me thousands of dollars and I have no redress.

Other articles of mine have been used in a similar manner, and I have seen articles from the pens of eminent men, and I think from yours, handled in a similar manner. I know of no way to prevent it. Certainly the courts cannot or will not. I have had an experience with them and know.

Now in regard to newspaper articles, and I presume your letter alludes to one, I have this to say. That newspapers as a matter of business I am informed employ doctors and ministers as reporters who write on medical and theological topics for so much a line. Our clinics are largely public in every teaching institution, but even if they were private or open only to students or matriculates, who would have the audacity to exclude a physician presenting his card at the door, unless you know him to be a reporter? Clinics are posted on the bulletin boards of hospitals, colleges, and also of the Academy of Medicine of this city. When this is done not only the profession but any layman can obtain a knowledge of the work done in the several clinics a day in advance. The reporter is hired by the papers to keep posted on these announcements, and report to the papers such work as he thinks would be of interest to its readers. And then the Medical Libraries are accessible to him. He writes his articles for so much a line, and the paper prints it to increase its circulation. Can you tell me how to prevent it? I think you cannot.

Scarcely a day passes that I do not see in the lay papers a report of some clinic, important or unimportant, and the name of the surgeon who conducted it is mentioned. I always feel sorry for the surgeon. I will tell you why. There are those in the profession who would believe that these men were party to the article, but with an occasional exception, I know to the contrary. And then again medical students often pay their way through college by reporting to the papers interesting clinics. The teacher cannot possibly know of this because the student is sharp enough to keep his own counsel to save himself from expulsion. One student, after he had been graduated, told me he made eight hundred dollars reporting clinics to the lay press to the Syndicates and the Associated Press, and many others have given me similar information. Teachers in public clinics are the most frequent victims.

Every surgeon or specialist depends upon the profession and not the people for his patients. Nine patients out of every ten who come to the specialist or surgeon are sent by physicians. Now, understanding this, and knowing that the profession stamps as dishonorable and contemptible newspaper advertising which leads to notoriety and not reputation, and knowing

that physicians would ostracise such a surgeon or specialist and send their patients elsewhere, do you believe or any other member of the profession, that a specialist would, if he could help it, allow any allusion to his work in the lay press? Understanding this question as I do, I cannot believe you do. Every article that ever appeared has injured the surgeon and specialist incalculably. If I had a hated enemy, which I hope I have not, and I wished to ruin him professionally or financially, I know of no way so safe or speedy as to hire a space-writer to report his clinic and if possible his private operations to the lay press once or twice a week. In less than six months the profession to a man would ostracize him.

A few years ago, the newspapers followed a case of mine in the city hospital for three months with daily fake reports in spite of my most strenuous efforts and those of the hospital and my friends, to suppress it. It almost ruined me professionally and financially, a lucrative practice was almost destroyed.

No! The specialist whose clinics and name appear in the daily print is to be pitied by his fellow practitioners, not censured. I have had the bitter experience and I know what it costs.

In justice to myself, I have taken the liberty to send your letter with this to a medical journal

I am, Dear Doctor,
Very truly yours,
A. M. Phelps.

The Necessity for Exact Evidence in Treating Scientific Subjects.

"It is thought by many, who have not been at the pains to examine what science is really doing in our day, that the wonders she presents to men's contemplation, the startling revelations which are being made from day to day, are merely dreams and fancies, which replace indeed the dreams and fancies of old times, but have no worthier claims on our belief. Those who carefully examine the history of science will be forced to adopt a very different opinion." (Proctor)

During the lifetime of those here present the greatest advances in science have taken place. Geology, paleontology, biology, physiology, chemistry, and the science of medicine have all developed more since 1859 than in all that period which went before. This has very largely been accomplished by adhering to the advice of Goethe, us expressed in the following verse from Faust.

"Let him look round him, standing without fear;
This world speaks plain for who has ears to hear;
He need not stray within the vast to be,
But clasp what he can feel and see."

This quotation from a noted scientist (Goethe) is as pertinent to-day as when it was uttered in the last century. It shows well that he who treats scientific subjects is extremely likely unless he does "clasp that *only* which he can feel and see" to have something to fear as the illustrious author of this verse—who was more or less constantly embroiled when he left his verse writing, in which he had few superiors, for scientific work—into which he took too much of his truly great poetic nature.

How odd it seems to us now that there should have been in the last century two distinct sets of scientists—the one known as the ovulists, who maintained that the egg was the real animal germ, and the animalculist who believed that the spermatoza were the real germ. Since both are equally unfounded and to day we trace the individual human embryo from the single cell through a series of transformations no less wonderful than the well known metamorphosis of the butterfly.

In geology, no less than biology and physiology wrong conclusions were drawn and men and professions long discredited in consequence. We may say that a new era of reasoning from the known and demonstrated, appeared about 1859, but not all who treat of scientific subjects have yet fallen into the truly scientific method of accepting as fact that only which is proven.

Again Goethe, gives us good advice which he himself sadly neglected.

"Nor husk nor kernel Nature brings—
For all one only type of things.
Yet prove thyself and seek to know
If husk or kernel thou dost show."

One is forcibly reminded when reading much that is written on medical subjects that both these golden rules of Goethe are forgotten. New remedies are constantly coming up that never would if only very elementary principles were borne in mind. Conclusions as to diagnosis and treatment and prophylaxis are gravely promulgated when the error which led to them can easily be seen.

The now famous experiment before a body of eminent medical men to determine whether or not gas pumped into the rectum of a dog would ascend beyond the ileo-caecal valve, and the conclusion gravely announced that it would not—required further consideration when it was discover-

ed by some one who took the trouble to examine—that the animal was a female and that the tube had been inserted in the vagina.

As simple as this error was, men all along have been and are making such errors, and we as a profession, are often placing ourselves in a false position by such careless processes of drawing conclusions.

We have not our animalculists and our ovulists of to-day, that we have many matters regarding which there should be greater unanimity of opinion than now obtains.

One specialist, we are told examines sputum from a supposed phthisis patient and reports "that it is a case of phthisis" another reports that "it is not." The same is frequently the case with diphtheria suspects and other contagious disease cases. What then is the true condition and what is the remedy for this conflict of statement? Why do conclusions so radically differ?

To answer the last question first, it is because all knowable facts regarding the case are not considered and false conclusions consequently possible. The condition is brought about in this way. We have been taught to consider all cases where the tubercular bacilli are to be found in bronchi, as phthisis, and where the diphtheritic bacilli are to be found in throats, as diphtheria, and so on. Now I am but getting back to elementary principles by considering whether or not this is so.

Pediatrics of August, 1898, contains the statement of a well known physician, Dr. Allen, who while treating a case which both clinically showed diphtheria and in the germ cultures showed the Loeffler bacillus, bethought himself to examine cultures from the throats of other members of the family, all perfectly well. In the cultures from others of the family, "much to the good doctor's disgust" the Loeffler bacillus was plentifully present, and virulent and so remained for three or four weeks longer with no clinical symptoms whatever.

But why this disgust, since the patients were well, and remained so—did it tend at all to discredit his one case—not the least to my mind. So also Dr. Gross, of Boston, found bacilli in 8% of normal throats.

The acceptance of tubercular bacilli or diphtheriitic bacilli alone, as evidence of disease is a monstrous thing, just as the diagnosis from the cultures alone would have been in the case of Dr. Allen's healthy members of that family. The source of error in both these cases is quite similar.

We know that in the dust of a room, in cracks of a floor, the various bacilli may remain for a longer or shorter period, quite virulent and ready for development. Shall we, therefore, conclude that the room is a case of diphtheria or phthisis, because we have found harbored by it a lot of diphtheritic or phthisis germs? Or shall we, with Dr. Patterson, of Philadelphia, go to the other extreme and say that "the presence of virulent germs (streptococci) make no difference because streptococci were found in normal healthy urethra."

Out of all this seeming contradiction does there appear any way without discrediting the observations of some. To my mind there does—and a very simple one.

The germs that have found lodgment in the cracks of the floor, have fallen upon unsuitable soil and so remain innoxious—while those that fall upon healthy urethras in Dr. Patterson s cases, which remain normal and healthy, or the cases of Dr. Gross—did not fall upon ground suitable for their continued life and reproduction. nor did those diphtheria germs which found lodgment in the air passages of Dr. Allen's healthy patients—although associated with their diphtheria ridden relative. Nor yet in the normal throats where Dr. Gross, of Boston found them.

That there is a certain condition of ground necessary for seed growth, all agriculturists know well, when we cultivate germs artificially we know certain conditions to be necessary (the element of time is one) and it seems to me that it has been shown that certain (unknown perhaps) conditions are necessary before germs of the various kinds find habitation and a chance to do their deadly mission.

Dr. Loomis in the Medical Record of December 10th, 1898, speaks of the pretubercular period of phthisis and gives some intimation of how the bronchi and alveolar walls are prepared for the proper reception of this dread enemy of man, tubercular bacillus.

If we accept this idea of receiving but not giving proper reception to these various bacilli until certain conditions arise as being correct—to what conclusions does it drive us, and what questions arise for future settlement? If the diphtheria bacillus may find lodgment in a perfectly healthy throat without detriment to the owner of that throat in some instances, what are those instances, and how long may the bacillus remain under those conditions without causing harm to the individual or meeting its own death. And again, how shall this condition be maintained in the patient until after the death of the bacilli. The answer to both of these must come in the future, but for the present we may conclude that to maintain as rugged a constitution and live

in the open air as much as possible promises the best chances of successfully maintaining an immune condition.

To accept these facts will cause some changes in statistics—but no one in search of truth should mind that. The report of our Board of Health should read as it does in the first lines. "The examination of cultures made by inoculating the tubes with the exudation from the throat of —— shows presence of diphtheria bacilli," but it should not go on to state "The case is thus one of true diphtheria," for the exudation from the throats of Dr. Allen's and Dr. Patterson's healthy cases showed the same thing. On the other hand there would appear to be reason to think that in cases of true diphtheria and true phthisis, since both recover, that there must be a period when the patient has outlived the bacilli and still suffers from the ravages of the disease.

That this is so seems not only logical but is supported by the fact that specimens of exudation or sputum have been submitted occasionally to two competent authorities—the two specimens taken at about the same time—one finds bacilli and the other does not. We are driven then to the conclusion either that the one examiner has failed to find that which really existed, or to the conclusion that the bacilli are not at all time present, in this case. The latter has come to be accepted, by some, as the fact. To conclude then, the presence or absence of bacilli of any kind should not be accepted without concurrent facts, as indicating a given disease, but simply as confirming the clinical symptoms, where there are any, and helping to make a diagnosis, where there is disease serving as a warning when found in healthy persons.

If I have pointed out any new line of reasoning I am glad to have contributed to the general advance. If I have only voiced an old idea, I hope I have done so without adding aught of error.

"Truth crushed to earth shall rise again,
The eternal years of God are hers;
While error wounded writhes in pain
And dies among her worshipers."

Wickes Washburn, M. D.
New York.

The Life of Gen. Forrest, By Dr. Wyeth.

We all know Dr. Wyeth, the surgeon who originated the bloodless amputation of the hip joint, author of a text-beek on surgery, who commands as large a post-graduate audience as any man in New York City. Genial, kind, conservative, yet bold; an easy, fluent, but terse lecturer; he secures the confidence of his patient and the admiration of his listeners.

During the civil war Dr. Wyeth was a surgeon in the Confederate army and served with distinction throughout that memorable struggle. After the fall of the Confederacy and the cause he had espoused, he went abroad and practiced his profession for some years in Berlin. But the doctor loved the "piney woods of Georgia" and the "red mud of Virginia," as he is wont to say, and could no longer endure that an ocean should divide him from the land of his nativity. So the nation's flag received him in its forgiving folds.

The doctor has written numerous magazine articles pertaining to our late unpleasantness. He was bitterly criticised some years ago for asserting that Confederate prisoners of war, confined at certain locations that he named, were treated no better, or but little better, than Union prisoners at Libby and Andersonville.

This last literary effort, the "Life of Gen. Forrest," is a credit to the doctor, and through him to the profession of which he is a member. So far as we are able to judge, it is written in a spirit of fairness and impartiality, especially considering the fact that it is written by one who shared in the events narrated. The power of description and literary skill evinced are beyond question. The old soldiers who took part in the campaigns here described, upon reading this book, will live over again those old days that were filled with war's alarms. We congratulate the doctor upon his success as an author.—*Chicago Clinic.*

Bloodless operations upon the nasal septum are now an established fact, due to the discovery of the astringent and hemostatic properties of Suprarenal Capsules. The rhinologist may concientiously assure his patient that operations can be performed with little or no demonstration of blood by employing the Aqueous Extract of the Snprarenals.

An extract made by the following formula is very efficacious and has excellent keeping qualities.

Adrenals (Armour's Desiccated)	dr.	1
Acid Boric	grs.	16
Cinnamon Water	drs.	4
Camphor Water (hot)	oz.	1
Distilled Water (hot) q. s. ad.	ozs.	2

Macerate for four hours, then filter.

The surgeon will find this extract a great aid in all minor operations.

To insure results a pure Suprarenal substance should be used.

Vaccination and the Vaccine Produced at the Parke, Davis & Co., Establishment.

The vivid descriptions of smallpox epidemics in the pages of the great historians ought to teach us modern mortals what the loathsome disease must have meant in horror and dread to all mankind before the efficacy of vaccination became generally acknowledged.

Even more impressive than the classical pictures of the historians is the evidence presented by the statistics in which are crystalized the experience of entire nations. A calamitous smallpox epidemic raged in Germany during 1870-71, carrying off 143,000 victims in a population of 50,000,000, and in 1874 a law was enacted making vaccination obligatory in the first year of life and revaccination also obligatory at the tenth year.

In consequence of this law smallpox has been so successfully stamped out in Germany that the annual loss of life from this disease is only 116!

Similar figures are afforded by every civilized country, and the lesson they teach is reenforced by the disastrous experience of many careless communities which have temporarily neglected to perform systematic vaccination among the people. The city of Montreal can bear sorrowful witness, from its epidemic in 1885, and the English city of Gloucester, from its outbreak of smallpox in 1896, to the appaling evil which is likely to follow concessions made to antivaccination sentiment.

OPPONENTS OF VACCINATION.

The principal stock in trade of those who oppose vaccination is borrowed from the ancient and discarded method of "arm to arm" inocculation, syphilis and possibly other diseases being thus communicated from child to child. In the vehement objections to animal vaccine the tubercular germ has been the great bugaboo. But our methods of selecting cattle and our use of glycerine to kill any possible germs in the vaccine exclude that danger perfectly.

But to these unfounded and childish grounds of opposition must be added others of more weight and truth. Not without reason have the antivaccinationists protested against the ulcerations, inflammations, abscesses, and sloughings with which vaccinators have been only too familiar in the past, thanks to the general use of germ-infected "points." The cry of reprobation against these things is not to be silenced by calling people cranks when our best authorities and warmest advocates of vaccination tell us that the old-fashioned "points" fairly *swarm* with disease germs.

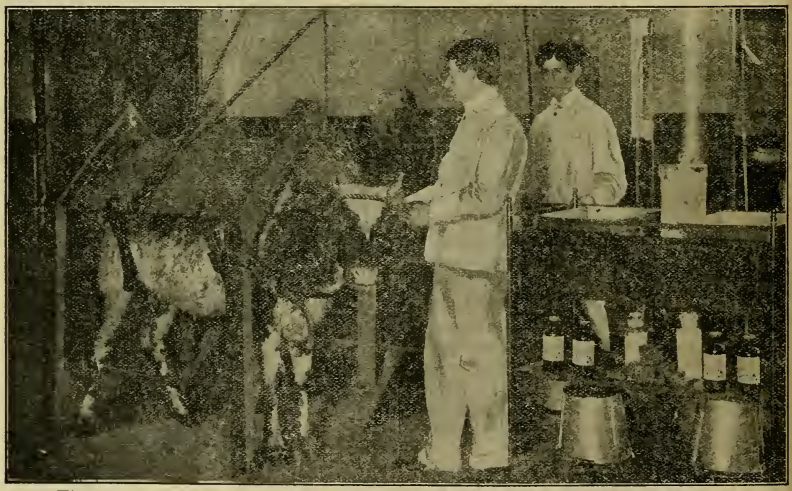


Fig. 1.—"Ready to Invert"—Aseptic Instrument and Dressing Case on the Right.

THE PROBLEM FAIRLY STATED.

When we decided to place vaccine on the market under our label, we felt that *at any cost* our product must be *the best product*

obtainable, otherwise we had better keep out of the vaccine business. And now we purpose to sketch very briefly and rapidly the means we use to preserve our vaccine from infection—measures of asepsis and antisepsis which could hardly be made more minute and painstaking in a modern hospital where patients are prepared for dangerous operations.

Fig. 2.—One Row of Inoculated Heifers in Propagating Room.

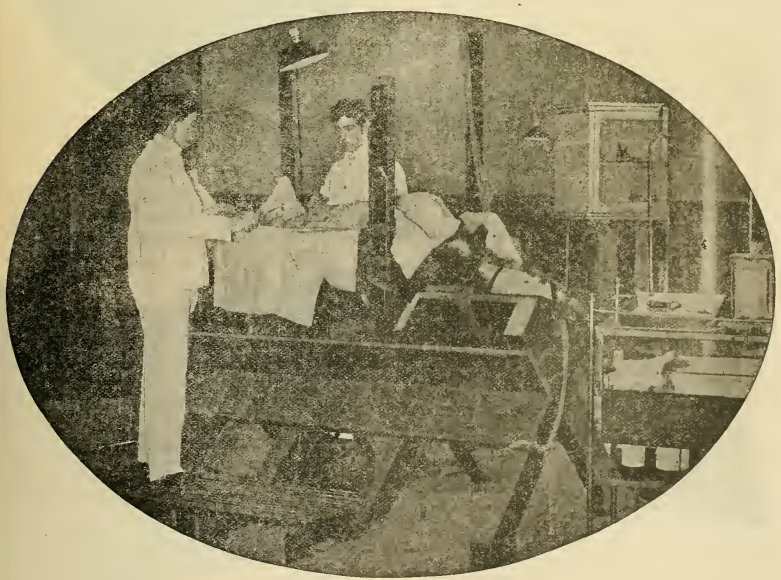


Fig. 3.—Collecting the Vaccine.

THE ANIMAL.

We use only the healthy heifer about eighteen months old. The animal is first carefully examined by our Veterinarian, Dr. E. A. A. Grange (formerly Michigan State Veterinarian), for any evidence of disease, external or internal. A ringworm on a heifer is enough to condemn it. *The Tuberculin test is applied in every case*, and any heifer which exhibits a suspicious rise of temperature is rejected.

INOCULATING THE HEIFERS.

When the animal is finally pronounced to

be in perfect health, it is scrubbed from head to foot and taken into the Operating Room—a large, high chamber, with cement floor and varnished walls susceptible of ready cleansing and disinfection. Here, with the aid of a convenient apparatus (see Fig. 3), the heifer is placed on its back; the abdominal surface is thoroughly lathered, washed, and *shaved*, and is then scrubbed once more with sterilized water; it is then washed thoroughly with a disinfectant solution; and after a final washing with sterilized water, the abdomen is ready for

SCARIFICATION.

This is performed quickly with sterilized instruments. The "seed" vaccine is applied, rubbed in thoroughly, and permitted to dry. The "field" of operation is then covered with an *aseptic and impenetrable* cement which effectually excludes germs. Over the cement we place a layer of absorbent cotton, and over the cotton a protective bandage.

(Other manufacturers of vaccine merely cleans the abdominal surface. So far as we are aware, they do not use a disinfectant, nor do they cover the "field" with anything, simply allowing nature to form a scab.)

The heifers are now ready for the

PROPAGATING ROOM.

Figure 2 shows one row of iron stalls. Here the inoculated animals are kept far about five days. Men are on hand constantly to collect feces, etc., all excreta being removed from the room immediately.

COLLECTING THE VIRUS.

After about five days the heifer returns to the Operating Room. The hoofs are carefully cleaned, and the various cleansing operations described above as preliminaries to inoculation are now *repeated*.

The dressings are removed; the whole field of operation is cleansed with sterilized water and disinfectant solution; and the external scab is removed *and destroyed*.

The pulp of the vaccine vesicles with exuding serum is now carefully collected with sterilized spoon curettes and placed in sterilized containers filled with glycerin.

Fig. 4.—Grinding Vaccine with Glycerine—Emulsifying Apparatus to the Left.

MANIPULATION OF THE LYMPH.

The vaccine is now brought to our Biological Laboratory, and is run through sterilized grinders until a *homogeneous mixture*

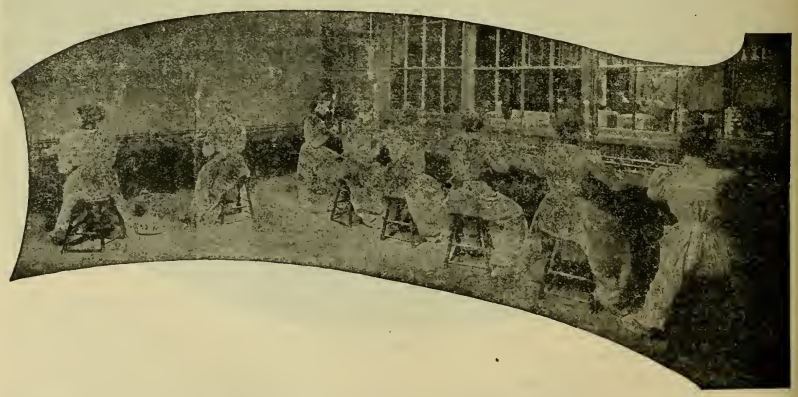


Fig. 5.—Filling Vaccine into the Capillary Tubes.

is obtained. The requisite amount of diluent is added, and the mixture is shaken for several hours in a specially devised shaking apparatus in order to make a perfect emulsion.

SEARCHING SCRUTINY OF THE FINISHED PRODUCT.

The vaccine in now examined *bacteriologically and physiologically.* Every single parcel of our vaccine is tested on heifers before we permit it to go out on the market under our label. And in the great majority of cases our vaccine is tested for activity on children as well.

If our test requirements are fulfilled, it is filled by skilled operatives into sterilized tubes, in an Aseptic Room especially designed for the purpose. Each tube is examined to satisfy us that both ends are absolutely closed.

PROPER STORAGE OF VACCINE STOCK.

The sealed tubes are at once placed in a refrigerator and kept there until needed for orders. We aim to send out only strictly fresh vaccine, and our stock is changed every week. The proper storage of vaccine by our patrons is of the utmost importance. Vaccine is a most delicate and perishable product. *Keep it in a cool dark place* (best of all, in a refrigerator), and by all means avoid exposing it for any length of time to a temperature above 70 deg. F. During warm summer weather vaccine deteriorates very fast.

THE "SEED" VACCINE.

This is, of course, the corner-stone of our process: and we insure its activity by our stringently careful preservation and by frequent tests.

WHAT THE TRUE VACCINE VESICLE LOOKS LIKE.

Pray, remember that the so-called vesicle is the *only reliable indicatiou* that the vaccine has "taken." *There is absolutely no other proof for or against the vaccine.* A hole in a man's arm half an inch deep—a scar half an inch long—proves nothing (except that infection more or less serious has occurred), and neither one affords any guarantee of protection against smallpox. On the other hand, Jenner himself declared that a full measure of such protection is imparted by a single vesicle. The latter varies in size, but is usually *umbilicated* or depressed in the center. At one stage in its growth the vesicle is filled with pearly-gray matter. Often it is small and escapes observation. *Pure vaccine ought to produce only a mild reaction.* Violent symptoms, local or constitutional, point to infection, either from the vaccine itself or through carelessness.

The Treatment of Extensive Ulcers.

Blanchard, in the Manitoba and West Canada Lancet, gives the following as his experience in the treatment of ulcers:

On the morning of April 28, 1897, I was called to W. T. B., aged forty-three years, engineer in a stave factory, who had been injured by the explosion of the mud drum. I saw him an hour after the accident and found him suffering intense pain, and wildly delirious.

Whisky had been administered to overcome the shock, and three-eighth-of-a-grain of morphine pills to relieve the pain. I immediately gave a hypodermic of morphine, a quarter of a grain, which soon quieted him, and then examined his injuries, finding the following conditions: Upper extremities severely burned about the face, neck, and upper portion of the chest, the left eye, ear, and nose being most severe; left arm, at elbow, wrist, and entire hand; right arm, at wrist. Lower extremities: right buttock over one half of the surface; right leg on the patella, calf, and ankle; left buttock, thigh and leg, over the whole posterior surface, patella, and a strip two inches wide running nearly around the ankle.

The burns were all of the second degree and healed without sloughing, except on the left calf and ankle.

The appearance of the left eye was bad, the cornea being cloudy, and my prognosis was guarded, but the eye afterwards cleared up and the sight is normal.

I dressed the wounds with limewater and linseed oil, equal parts, applying it on old linen cloths saturated with the mixture, and covering it with wadding obtained at dry goods store.

In the evening when I changed the dressings I found vesicles and large bullæ had formed containing clear serum, the largest to the amount of four ounces, all of which I punctured, removing all loose strips and hanging fold of epidermis.

The limewater and linseed oil dressings were used four days and then discontinued, a dressing of plain vaseline being substituted. As soon as pus began to form the wounds were thoroughly cleansed with corrosive sublimate solution (1 to 3,000), using small pledgets of absorbent cotton, then dusted with acetanilide and boric acid, equal parts, applied with a pepper caster, and the vaseline dressing applied; dressing changed every twenty-four hours.

The corrosive sublimate solution seeming

to cause too much irritation, I changed to two-per-cent. carbolic acid solution, which worked admirably.

The eyes were treated with ice compresses, the pupils were keep fully dilated with atropine sulphate, and the following eye wash was ordered: R Acidi boric., sodii biborat., aa.

The internal treatment was with morphine to quiet pain, and aconite when the pulse was too full and strong.

May 22nd, twenty-five days after accident, the wounds were all healed except those of the calf and ankle of the left leg; on the calf was an ulcer eight inches long by four inches wide, and on the ankle a strip two inches wide, running nearly around the leg, both having a very unhealthy appearance, with deeply cut edges. I concluded it would be necessary to try skin grafting, but wished first to get a healthy granulating surface. It was then I conceived the idea of treating it with bovine blood.

23rd.—I first cleansed the ulcers thoroughly with the carbolic solution, then saturated plain asceptic gauze with bovine and covered the ulcers; over this I put a layer of guttapercha tissue, and covered the whole with wadding. The following morning when I removed the dressing there was no pus, and healthy pink granulations were springing up over the ulcers. I changed the dressings every twenty-four hours, and could see a rapid improvement each time, the new skin extending in more and more from the edges. Improvement was so rapid I concluded grafting would not be necessary, and continued the bovine dressings, dusting the new granulation with calomel if they became at all exuberant.

June 4th, twelve days after beginning these dressings, the ulcers were entirely healed. I then put on a dressing of plain vaseline, applied a bandage, to be worn during the day as a support to the circulation, and discharged the case.

12th—At this writing there are no signs of any remaining scars.

On thing noticeable with the blood treatment was the absence of pain. Before I used it the ulcers were very painful, but after applying the blood dressing there was immediate relief, and the patient experienced no more pain.

Certificates of Births Required in Richmond.

An ordinance of the Council of the city of Richmond, approved October 6, 1899, requires "that every physician, accoucheur, midwife or any other person in attendance upon the birth of a child, shall send to the Borad of Health, within three days after the birth of such child, a certificate setting forth, as far as can be ascertained, the full names of parents, the sex and color of child, the place of birth, and the date of birth." In case any such person as was in attendance "shall refuse or neglect to furnish such certificate as aforesaid, he or she shall forfeit, and pay the sum of five dollars for each offence."—*Virginia Medical Semi-Monthly*.

"The World's Great Need of Christian Science."*

A careful reader of Mrs. Eddy's book, Sc. and H., and other Ch. Sc. literature meets with scarcely anything but what is absurd and offensive, but with nothing more revolting than the words with which this lecture commences:

The lecture opens with assurance characteristic of Christian Scientists, asserting that:

"There never was, and never will be, a question propounded that has not its answer in Ch. Sc."

Mrs. Eddy tells us, being divinely inspired, "if you take away the erring human mind the body loses all appearance of life and action, and the human mind calls it dead, but this human mind *has still a body*, like the one it had before death, and which we still see" (81).

What answers has Christian Science to these questions?

1. "Mortal mind and its body are one" (S. and H. 70).

How can the mortal mind leave the body?

2. "The erring human mind is unreal" (p. 8). The body is matter. "Matter is unreal" (p. 7).

If you take nothing away from nothing what remains?

3. Is mortal mind immortal?

4. Is the body also immortal?

5. Is the body which the mortal mind "still has," the same body which it had before death? If so what will mortal mind do with it when it becomes a putrefying mass; if it is not, how is the new body "like the one we still see"?

6. Does mortal mind keep bodies in stock ready for emergencies?

"Looking out over Earth's vast arena, where the farce of human life continues to be played, and finding in that play *nothing but a farce*, nothing but unreality, does it not stand to reason that there is something wanting?" "Such a something is Christian Science. It comes to-day to fill the world's great need."

*Lecture by F. I. Fluno. M. D., C. S. D., Reported in Ch. Sc. Journal, Sept., 1899.

What does Christian Science teach us? as to:

1st. The farce of famine and destitution. "Looking out over the world's vast arena," we see millions perishing from famine. Ch. Sc. comes to their relief with the assurance that: "Food is an illusion to be dispensed with" (p. 387). "Food does not affect the real existence of man" (387). What you need is "more goodness," get it and you will not require food (S. and H. 387). They are shivering for want of clothing. "Heat and cold are the product of mind." "Mortal mind produces animal heat" (373). All you need is more "mortal mind."

2d. "The farce of blindness and deafness." Hundreds of thousands are blind or deaf. "No organic constitution can give hearing and sight, or make it the medium of mind" (485). "Sensible objects are to be apprehended mentally instead of physically" (262). "Mind is not dependent upon the ear, and the eye for sound and sight." (250). Besides: "The testimony of the senses is never to be accepted" (384). "Their testimony is false" (14). Therefore, the blind and deaf, are better without the senses of sight and hearing.

3d. The farce of filth and dirt. Many cities reek with putridity and dirt, on account of neglect of hygienic laws. "Ignorance of hygiene is a blessing" (381). "It is not conducive to health" (58).

4th. The farce of ignoranee. "We welcome the increase of knowledge, even if it lead to error, *because* sinful human invention must have its day, and we want that day to be over" (261). "Man has sought out many inventions, but he has not found out that knowledge which can save him from the *dire* effects of knowledge" (91). "Education is a cause of disease" (69).

5th. The farce of war. Ch. Sc. teaches that wars are necessary and according to Divine law. They "stir up evil to its utmost, and bring it to the surface, and reduce it to its proper state of nothingness" (532).

6th. The farce of smallpox and other contagions. Ch. Sc. says these are all beliefs, get rid then of the belief and they will disappear.

7th. The farce of leprosy. Tens of thousands of our fellow creatures are slowly rotting away, member after member, from that most loathsome disease. Ch. Sc. meets their wants with:

"All diseases are illusions." Get your "corporeal senses" (which are liars) "to respond to the truth, to realize the presence of health" (411), and behold! your leprosy will disappear.

8th. The farce of sin. The Bible says: "If we say we have no sin we deceive ourselves and *the truth* is not in us." Ch. Sc. says: "Sin is an illusion" (528), "sin is unreal," "If we confess our sin, He is faithful and just to forgive our sin." Ch. Sc. declares that there is no forgiveness for sin: "We must learn that there is no discount in the law of justice, we must pay the uttermost farthing" (320).

9th. The farce of intemperance. The utterances of the lecturer on this subject are characteristic of the mental obliquity which is manifest in all Ch. Sc. writings, viz., the constant admission of *facts*, and the constant effort to obliterate those facts by Ch. Sc. *logic*. Thus: Mrs. Eddy throughout the whole of S. and H. admits the existence of disease and sickness, mortality and sin, but endeavors to prove by logic that none of them really exist.

"Mortal mind produces its own *phenomena*" (116), such as earthquakes, cyclones, deluges, contagious diseases, envy, hatred, malice, and every other *evil*. Read her article headed "Malicious Reports" (274): "When the press is gagged, liberty is beseiged; but when the press assumes the liberty to *lie*, it discounts clemency, mocks morality, outrages humanity, breaks common law, gives impulse to violence, envy and hate. When news dealers shout for class legislation, and decapitated reputations, headless trunks, and quivering hearts, are held up before the rabble, in exchange for money, place and power, the vox populi is suffocated, individual rights are trodden under foot and the car of the modern inquisition rolls along the streets besmeared with blood."

"In times like these it were well to lift the veil or the sackcloth of home, where weepeth the faithful, stricken mother, and the bruised father bendeth his aching head; where the bereft wife or husband, silent and alone, looks in dull despair at the vacant seat, and the motherless little ones, wondering huddle together." Surely these are "phenomena" enough to justify the assertion that *evil* is a stubborn fact, and yet, the whole object of Ch. Sc. is to prove *by logic* (save the mark) that there never was, is not now, and never can be, sin or suffering or evil. So, also, we find Mrs. Eddy declaring that she "has already in her possession well authenticated records of the cure, by herself and her students, through mental surgery alone, of dislocated joints and spinal vertebræ," (!) and nine lines after, declaring, "no breakage or dislocations can really occur" (400-1).

The lecturer treats the subject of intemperance in the same absurd, irrational manner. He tells us the sad truth that: "The

whole world is in the seething maelstrom of intemperance," and immediately afterwards tries to negative this appalling *fact* by the logic: "There is only one mind, that is God, that mind admits no intoxicants and no intoxication." Are Ch. Scientists sane? or are they playing upon the credulity of the unthinking?

The remedy the lecturer proposes for the cure of drunkenness is to get Ch. Sc. and learn that nothing is intoxicating of itself, that whiskey is *really* as harmless as milk, hat it is only the belief of mortal mind which makes it intoxicating. It is this "terrible deception" which causes the whole world to be in the seething maelstrom of intemperance.

The teaching of Ch. Sc. as to intemperance amounts to these irreconcilable propositions:

1. The whole world is in a seething maelstrom of intemperance.

2. There cannot be intoxication or intoxicants.

3. The seething maelstrom is the result of belief of mortal mind.

4. "Mortal mind itself implies something untrue and therefore *unreal*" (S. and H. p. 7).

The lecturer attempts to solve the financial question. "The world needs Ch. Sc. to settle its financial question. It can never be solved so long as gold or any other material commodity is made the basis of value. Where shall value be found but in the 'pearl of great price'"?

"When men learn through Ch. Sc., 'in God we trust,' then the financial question will be solved."

This is simply pious twaddle.

The numerous lecturers who are sent forth from headquarters to delude the credulous into Ch. Sc. would hardly accept "the pearl of great price" as remuneration for their valuable services.

Mrs. Eddy's mansion and 80 acres at Concord, valued at somewhere near $800-, 000, was not purchased with such heavenly currency.

Nor is it the "basis of value" in payment of S. and H., which Mrs. Eddy declares is the "little book" brought down from heaven by the Angel of the Apocalypse, and which she impiously says is "the Holy Ghost."

This "Holy Ghost" she forthwith *copyrighted*, and has been selling for "filthy lucre," until she has amassed a fortune of over a million. Moreover, so far from "trusting in God," for the dissemination of the Truth, which is to regenerate the world, contained in this book, she withheld it from publication for over six years, until she satisfied herself that it could be "profitably published" (S. and H. preface).

If Simon, who offered money for the power to confer the Holy Ghost, was rebuked by Peter with the words, "Thy money perish with thee because thou hast thought that the *gift of God* may be purchased with money." What must be the condemnation of her, who, having received "the little book, "the Holy Ghost," from heaven (S. and H., p. 551) makes it an article of merchandise, and rolls in wealth with the proceeds?

Contrast what is being done all over the world, to relieve suffering humanity, with what Mrs. Eddy has done.

Thousands of devoted men and women are sacrificing health, ease and comforts, in heathen lands, and among the poor of our cities, surrounded by ignorance, squalor and brutality, princely hospitals, and thousands of infirmaries for every form of human devising, supplied with lavish endowments, ministered to gratiously by thousands of highly educated and refined attendants, asylumns for orphans, blind, deaf, lepers, homes for aged and infirm, refuges for the fallen, in fine institutions for the relief of every form of sin and suffering stood the whole world. While all that Mrs. Eddy has done has been to publish a book of utter nonsense, the price of which keeps it bevond the reach of the masses, and the copying of which, she blasphemously pronounces, is "seeking again to cast lots for his vesture" (M. W. 302).

The world's great need is to be met by buying science and health.

Reading it heals our diseases (see 70 pages of certificates in M. W.) Buy Sc. and H.

It blots out our iniquities "Buy Sc. and H.

It is the Holy Ghost, Buy Sc. and H.

Moreover, Buy Mrs. Eddy's "Christ and Christmas." "Looking at the pictures in it heals the sick." (M. W. 372).

Buy also Mary Baker, G. Eddy *spoons*—only $3.00 silver; $5.00 gold plated. On each of these most beautiful spoons is a motto that every person on earth needs to hold in thought; but what that motto is cannot be found out except by buying the spoons (see additional Mch. Sc. Journal, signed: Mary Baker G. Eddy).

Looking at these spoons cures defective eye-sight. (Ch. Sc. Journal, May '99, p. 143).

The lecturer summarizes the teaching of Ch. Sc. as follows:

1. The world is hopelessly and helplessly sick.

2. This universal sickness results from and is merely believing in sickness.

3. Nothing but the science of Being can teach conclusively what does and what does not belong to Being.

4. The science of Being teaches the unreality of sickness.

5. Therefore, what Ch. Sc. teaches is "conclusive and final," hence "whoever contradicts or presumes to dispute Ch. Sc. will find that he is fighting against Eternal Truth—Almighty God."

This cheap thunder has little terror for any sensible man. Every one of the propositions, except the first, is nothing but impudent, bare-faced assertions. No one but a Ch. Sc. can declare the universality of sickness, and in the same breath declares all sickness to be universal

As to the claim made by Mrs. Eddy, that her book is a revelation from God, and that therefore all its driveling is Eternal Truth, we need only to read that there have been many other persons who have laid claim to Divine inspiration, and with equal authority. Compare for instance Johanna Southcott's career with that of Mrs. Eddy:

JOHANNA SOUTHCOTT,

Latter part of 18th century: "Had revelations from God," "scribbled much unintellible nonsense."

"Said she was the woman mentioned in the Apocalypse. Declared she was about to give birth to Shiloh."

Carried on a lucrative trade by sale of seeds, which were to secure the salvation of the purchasers."

"Had an immense following who subscribed $1000 for a craddle for Shiloh."

"The preceeding thought in her workings is the redemption of man by the agency of a woman." (See Encyclopedia Brittiana, Chambers and others.)

MRS. EDDY.

Latter part of 19th century:

Had revelations from God. Scribbled much unintelligible nonsense.

Said she was the woman mentioned in the Apocelypse.

Declared her book was the child referred to by Isaiah.

Carried on a lucrative trade by the sale of her book which would cure disease and sin, and all evil.

Had an immense following who built her church at the expense of some $250,000.

Mrs. Eddy says: "This enables woman to be the first to interpret the scriptures in their true sense," and so the regeneration of the world is to be accomplished through a woman.

Truly history repeats itself.

How so many can be found to swallow all Mrs. Eddy's nonsense as Eternal Truth is best explained in the following extract from Sc. and H., p. 484. "The less mind is manifested in matter the better. When the *unthinking* lobster loses his claw, it grows again. If the science of life (Ch. Sc) were understood, then the human limb would be replaced as readily as the lobster's claw."

That is to say, when the Christian scientist becomes as *unthinking* as the lobster, he can grow another limb, and, of course, as unthinking as a polyp, then you may cut him into mince-meat, and every piece would develop a Christian scientist, and then the "science of life would be *perfectly* understood."

Christian scientists seem to be all aiming at this blissful condition.

JAMES H. RICHARDSON, M.D.,
M. R. C. P. Eng.

Accidental Wounds of the Female Bladder.

Frederick Holme Wiggin, M. D., (Journal of the American Medical Association, of Sept. 9, 1899). Accidental opening of the bladder has, for many years, been considered one of the most serious accidents that could occur in the course of the complicated work which gynecic surgeons are often called upon to perform. The following case is offered illustration of this type of injury.

M. H., unmarried, aged 41, was admitted to the City Hospital, Blackwell's Island, N. Y,, Sept. 30, 1898, suffering from a large myoma, which sprung form the anterior uterine wall and extended above the umbilicus. On Oct. 3, the abdomen was opened, and the tumor, which weighed seventeen pounds, was drawn through an incision six inches in length, freed from its attachments and removed, together with the body of the uterus amputated near the internal os. As hemorrhage was profuse it became necessary to remove the mass very rapidly, to accomplish which the anterior attachment of the tumor was clamped and cut, when it was discovered, from the escape of urine, that the bladder had been opened near the fundus.

The general cavity had previously been shut off with gauze pads and thoroughly irrigated, followed by the use of Hydrozone in half strength, and this, in turn, by saline solution. The gauze pads were now changed, and the opening in the bladder, four inches in length, was closed by means of two layers of chromicized catgut sutures. The wound was then disinfected, and there being a large peritoneal flap, it was attached to the bladder and made to cover the line of sutures, thus making the bladder-

wound extra peritoneal. After further washing out of the abdominal cavity with Hydrozone and the saline solution the external wound was closed, without drainage, and the usual dressings applied. The patient being feeble it was not thought advisable to make a vesico-vaginal fistula to drain the bladder, but, instead, a self-retaining catheter was introduced. At the end of ten days, however, tumefaction occurred over the lower angle of the abdominal wound, and, on opening it, urine began to escape. A vesico vaginal fistula was now made in order to afford adequate drainage. The sinus in the abdominal wall was curetted and, after being thoroughly disinfected with Hydrozone, its walls were sutured. Soon afterwards, the sinus having closed, sutures which kept open the vesico vaginal fistula were removed, and the latter closed quickly without any further operative interference.

Percival (in British Medical Journal, 1897, Vol- 1, p. 1282) reports a case of ruptured bladder on which he had operated. It was closed by means of a double wall of Lembert silk sutures. The wound in the abdominial wall was closed, after the peritoneal cavity had been flushed out with boric acid solution and a large quantity of clots and urinous fluids had been removed. For a few days the patient done well, and then died from peritonitis. But the necropsy proved that the bladder-wound had completely healed. It is the writer's opinion that the saline solution and Hydrozone been used, instead of boric acid, and the abdominal wound been closed leaving saline solution in the peritoneal cavity the patient would probably have recovered.

The Modern Treatment of Gonorrhea.

At several of his recent clinics at the New York Post-Graduate Hospital Professor Ramon Guiteras has been discussing the best treatment for cases of ordinary gonorrhea. Argonin and protargol he admits have been very serviceable, but he is inclíned to pin his faith to mercurol, a nucleid of mercury which is now commencing to be extensively used. Its principal advantage as compared with the proteids of silver, is that it does not disintegrate, and is a non-irritant, its action on the mucous membrane being purely physiological.

According to the Medical Age, the number of medical journals published in Paris was 186 in 1897. In 1898 these had increased to 206, and at the present time they number 215.

Phenalgin.

Dr. J. A. Hofheimer, (N. Y. Medical Journal LXVIII, No. 26, p 914. The Post Graduate, N. Y., XIV No. 10, p. 821) says:

The combinations the author has used are neumerous, i. e., in conjunction with salicylate of sodium, salol, or lycetol in rheumatism. and gout, with antiferments and peptogenic compounds in the various forms of dyspepsia and gastralgia; with guaiacol carbonate in phthisis, giving great relief; combining with arsenic or quinine in malarial affections, and more often given alone.

In summing up his experience with phenalgin, the author found it useful in all cases where pain was a prominent symptom, acting especially well in rheumatic and neurotic cases. Also, like most of the drugs of its class, it has antipyretic powers; and in malaria, used alone or combined with small doses of quinine, it aborts or shortens the paroxysm. It has hypnotic as well as anodyne properties, and is of great service in cases where opiates are often indicated, especially as it leaves no bad after effects and engenders no habit.

The Power of Imagination.

Dr. F., one of our readers, related that quite recently he had occasion to use the stethoscope upon an old lady who had called to consult him with a companion. Having completed his examination of the patient he turned aside to get the medicine indicated, as he did so he heard the old woman saying to her companion.

"That thing the doctor put on me has already did me lots 'o good. Where he rested it on my chest there is a spot as big's a silver dollar that burns like fire, an' my back's all in a sweat."

"Is that so?" said her companion, lost in admiration of the wonderful instrument.—*The Cliuical Reporter.*

Extract of Red Bone Marrow is rich in the elements that make hemoglobin, stimulate cell proliferation and feed the new born cells, causing them to propagate in turn. It is the remedy above all others indicated in anemic conditions. There is no better preparation for patients in need of a general restorative, as it builds flesh and blood and increases the appetite for all kinds of food.

Armour & Company's Extract of Red Bone Marrow is, we believe, on account of its great natural advantages, the most reliable marrow preparation.

The American Electro-Therapeutic Association.

Sept. 19–21, 1899, Washington, D. C.

The Convention was well attended when you take into consideration the number of physicians who apply or pretend to study "electro-therapeutics" in a scientific way.

The physicians present were from almost every State in the Union, from Portland, Me., on the west, Montana on the north and New Orleans on the south. All were enthusiastic on the subject of electro-therapy and immensely pleased with their results.

One very noticeable feature in all discussion was the elemination of "the cure all fanatic," justly considered the greatest enemy of electro-therapy.

The main idea of the Association is to deal with electricity as a scientific medical agent and to learn more of its physiological effect so that it may be more intelligently applied to pathological conditions.

I am happy to state that in this line of work order is being rapidly evolved from chaos and soon "electro-therapy" will be more appreciated by the general practitioner.

There were a number of very fine papers read before the Association, and while I do not wish to detract from any paper read before the Society, I think it will be pardonable in mentioning a few as of special interest.

"Light as a Therapeutic Agent" was the subject of a paper by Dr. J. H. Kellog, of Battle Creek, Mich. The doctor first described the different effects of the various rays of the sunlight and called attention to the fact these could all be intensified by the "arc light, plants made to thrive and fruits to ripen with more delicious flavor, &c., than in sunlight. He also noted the effect of the arc rays thrown through different colored lenses upon different insects and infusoria, deducing therefrom some therapeutic hints that might be expected. The doctor related his observations made in Copenhagen in the summer just past on the effect of the chemic rays of the arc light in the treatment of lupus and rodent ulcer which were simply wonderful, and he hoped in the near future to report on some cases of tubercular leprosy.

Dr. W. B. Snow, of New York City, read a paper on "The Treatment of Rheumatoid Arthritis" with the "Morton's Waive Current" and illustrated his paper with many X-ray shiagraphs of cases cured and improved by this method.

There is no doubt great efficacy in the "Morton Waive Current" and it should be more appreciated by those who have a static machine.

Dr. Scheppergrell, of New Orleans, La., read a paper on "Electro-Therapeutics in Diseases of Throat and Ear" which was very fine and pointed out a great field of usefulness in this specialty.

Dr. Massey, of Philadelphia, who probably has done more to disseminate general knowledge of electro-therapeutics than any man in America of to-day, read two very interesting papers, one "The Treatment of Tubercular Glands of Neck Without Scar," and the other paper, "The Cataphoric Treatment of Cancer.

Dr. Massey is probably more versed in this line of work than any one else and his paper created a good deal of interest.

J. D. Gibson.

Birmingham, Ala.

The Petroleum Idea.

As far back as Pharaoh's time, Petroleum was used to make sick people well, and with larger knowledge and scientific research comes the positive assurance that nothing is better for throat and lung troubles. When properly refined and emulsified its effect is soothing and healing, but there is everything in knowing what oil to use and how to use it.

The best preparation of Petroleum for internal use is Angier's Petroleum Emulsion. In the special process by which it is purified they eliminate all the irritating and nauseous properties of the crude oil without losing any of its medicinal qualities. It is pleasant to take, agreeing with the most sensitive stomach. The combination with hypophosphites make it a valuable nerve food and tonic.

According to the Pacific Medical Journal Dr. Ira Coe, a prominent physician of San Pedro, Cal., drank by mistake carbolic acid, and died a half hour later. The doctor had in his medical chest two vials, one containing brandy and the other carbolic acid, by mistake he chose the wrong vial. Every effort was made to save his life but, without avail.

We call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

Urotropin in Posterior Urethritis.

By Gerald Dalton, M. S. A. London., &c.

Of the many new drugs which are from time to time brought before the profession, some of which, unfortunately, are of little use, Urotropin, as a urinary antiseptic, appears to be of great utility. Nicolaier, Kelly, and Wilcox have all reported much benefit from its use in cystitis and as a uric acid solvent. It may therefore be of some interest to record the results of treatment by it of gleet caused by posterior urethral troubles.

In the five cases recounted, most decided and marked benefit must be referred to the Urotropin alone; the local and other treatments having improved matters up to a certain point, and then apparently ceased, a state of things unfortunately only too common in the cure of these troublesome complaints. In two other cases doubtful relief was obtained, due, however, in both to the patient's neglect of treatment, and of abstinence of *excess* of alcohol. Whilst in several other cases, now under observation, a complete cure has not yet resulted, though in no case, up to the present, can I record a complete failure of the drug.

Case I.—A. B., aged twenty-eight. Had gonorrhœa four months ago, since when a gleet had continued, for which he had been treated by injections of zinc and pot. permang., and had taken santal oil. First came under my observation eight weeks ago. Urethroscopically, a membrano-prostatic catarrh was shown. He was irrigated with hydrag. perchlor. c.ac. carbolic sol.,* and latter instillations of Protargol, 1 to 5 per cent., with Saw Palmetto and santal oil internally. The lesions had greatly cleared up, and then came to a standstill, and for a fortnight there was little or no improvement. Urotropin, 7 grs. t. d. s., was given, and on the fourth day the urine was hardly cloudy, only a few beads of discharge, all of which had entirely disappeared by the tenth day.

Case II.—C. D., aged twenty-five. Gleet, following an acute gonorrhœa, of seven months' standing. Came to me six weeks ago. Was treated by irrigation and capsules of salol, santal oil, and cubebs, improved for a fortnight, then no change for ten days, was put on Urotropin, 7 grs. t. d. s. Capsules dropped, irrigation continued. All discharge cleared in nine days.

Case III.—E. F., aged forty. Had gleety discharge for nine months following an acute gonorrhœa, discharge sometimes very profuse. Urethroscopically, prostatic catarrh. First seen two months ago. Irrigation, with capsules of salol, santal, and cubebs, internally, caused decided decrease of discharge, which entirely stopped for a few days, then returned. Early in Sept., was put on Urotropin, 10 grs. t. d. s. Capsules omitted, irrigation continued. Steady improvement took place almost at once, and continued. On the 14th day of administration of Urotropin no discharge, urine clear, frequency of micturition, which had caused much discomfort, entirely gone. I have seen this patient lately, and there has been no relapse.

Case IV.—G. H. Gleet of five or six months' standing, with acute exacerbations, and very free discharge after much exercise. As patient lived in the country, could not irrigate. Prescribed Saw Palmetto and santal oil, with tonics, as patient was in rather low condition. Three weeks showed very little improvement, so ordered using antrophors ichthyol, 10 per cent., in conjunction with internal medicine. After a month, discharge was very much better, and only little present, but this would not stop altogether, though antrophors changed to zinc. sulph., 0.5 per cent., which were continued until early in September, when the Saw Palmetto was changed to Urotropin, 10 grs. t. d. s. All symptoms cleared in ten days no return.

Case V.—I. J. Gonorrhœa seven months ago, has gleety discharge ever since, with great irritability at neck of the bladder lately, which commenced after patient had got very wet out shooting. Urethroscopically, small granular patch just anterior to the compressor urethræ muscle, and catarrh of the posterior portion of prostatic urethra. The patch in the anterior urethra was swabbed with argent, nitrate sol., 10 per cent. whilst the posterior lesion was irrigated with hydrag. perchlor. c.ac. carbol. sol. The granular patch quickly healed, and the posterior catarrh improved, but frequency of micturition was still a source of great discomfort, in spite of internal sedatives—hyoscy., bellad., benzoates, and santal oil—and was only controlled at night by rectal injection of a drahm of ext. opii, grs. x.; ext. bellad., grs. iii.; aq., ʒ ii. All other internal medicine being stopped, patient was ordered Urotropin, 10 grs. t. d. s., with ichthyol 1 per cent. irrigation. On the fourth day great relief was reported, patient being able to do without the rectal injection, and on the twentieth. day perfectly well.

In all cases the reaction of the urine will be, of course, ascertained, and should it be

*Author's "Gleet and Chronic Diseases of Urethra and Prostate."

very alkaline a little mineral acid with gentian may be prescribed. whilst if very acid, alkalies should be taken. I order the Urotropin to be taken, usually, well diluted with carbonated water.—*The London Therapist.*

An Ethical Matter.

The American Journal of Surgery and Gynecology says the following circular is being thrown about the streets of St. Louis:

THE METROPOLITAN HOSPITAL.

Has secured possession of the elegant Shaw mansion, located at 2900 West Chestnut street, and it is especially adapted for hospital purposes, having eighteen large rooms, wide hallways, and, in short, an ideal place.

"We recognize the need of an institution that will place the best medical talent at the disposal of people of limited means, and we propose to furnish such an one.

"We have made arrangements with several specialists, including a leading surgeon, an oculist, an aurist, etc., who will respond to our call at a moment's notice. And when any of our members get sick or meet with an accident, instead of placing him or her in a crowded ward, that is enough to make a well person sick, we will give him or her a first-class private room, and, in short, do unto others, as we would be done by.

OUR CONTRACT.

"This hospital contracts to give you the advice of prominent physicians and surgeons—and specialists, when needed—all the medicine you need, and when you get sick or meet with an accident we will send for you and admit you to our hospital, where you will be humanely and tenderly cared for; or, if you prefer it, our physicians will call and treat you at your own home.

The patient will be surrounded by all the modern facilities for use in case of sickness or accident; a complete register is kept of his temperature, respiration, action of medicine, and of what he eats and its effects; besides, the physicians are always there and know when the critical period comes and passes and takes the advantage of it.

DUES, ETC.

"You are offered all of these advantages for the small sum of fifty (50) cents. per month (in advance), with a guarantee that there will be no extra charges for anything you may require.

CONDITIONS OF MEMBERSHIP.

"Applicants must be white, male or females, of good moral character, and in sound health when application is made.

'We cannot treat chronic or incurable diseases contracted before becoming members for fifty (50) cents per month, but give a special rate on application.

HOME TREATMENT—MINORS.

"We will hereafter treat families at their homes. A man, wife and three children we will treat at their homes for one ($1) dollar per month; the sixth or seventh member of family, if there be so many, will pay an additional twenty-five (25) cents each. All over seven in a family of minors will be treated free of charge.

ADULTS.

A family of adults will be required to pay as follows: Both parents (or two members of family of adults) and only one son or daughter will be treated for one ($1) dollar per month, the fourth and fifth member of the family, if they be adults, will be required to pay fifty (50) cents each. All over five in family of adults will be treated free, making the limit on a family of adults two ($2) dollars per month. We hold ourselves in readiness to call at the homes of our members, night or day, and render every assistance that comes within the province of a physician or surgeon, and continue to treat patient until he or she is well.

"Patients will be furnished with medicine if they come to the hospital for consultation, but where physician calls at your home you are required to buy your own medicine. Our physicians will, however, carry a supply with them for emergency cases, for instant relief, etc.

"We cannot treat old, chronic or incurable ailments at above rate, but we will give special rate if you call at the office."

The Medical Society of Virginia.

At the thirtieth annual meeting of this society, held in Richmond, October 24th, 25th, 26th, and 27th, the following officers were elected: President, Dr. Hugh T. Nelson, of Charlottesville; Vice-Presidents, Drs. Southgate Leigh, of Norfork, T. S.A. Kent, of Ingram, and R, J. Hicks, of Warrenton; Recording Secretary, Dr. Landon B. Edwards, of Richmond; Corresponding Secretary, Dr. John F. Winn, of Richmond; Treasurer, Dr. Richard T. Styll, of Newport News. Dr. John P. Upshur, of Richmond, was appointed to deliver the annual address, and Dr. Stuart MacLean, of Richmond, to open the general discussion on "Malaria." The next meeting will be held in Charlottesville. —*Medical Record.*

The Catarrhal Diathesis.

In catarrhal affections of the various mucous membranes, particularly of the respiratory tract, there exists not only a relaxed atonic condition of these structures but an underlying constitutional state of malnutrition. All authorities agree that in order to eradicate the local pathological conditions, treatment by appropriate systemic remedies is indispensable; the patient's nutrition must be fostered and restored so that a degree of constitutional vigor is attained which antagonizes the catarrhal processes. Gray's Glycerine Tonic Comp. is the remedy par excellence in these cases because it has a two-fold action. Primarily and chiefly it overcomes malnutrition; it re-establishes normal nutrition by eradicating the ever-present atonic condition of the digestive organs, thus assuring the maintainance of normal digestion and assimilation of food; restoration of tone and nervous force to the entire system, and incidentally to the mucous membrane, is a natural sequence. Gray's Glycerine Tonic Comp. has, morever, a direct local anti-phlogistic and tonic influence upon the disordered circulation of the mucous membranes; it relieves engorgement and restores tone to the relaxed atonic blood vessels. This remedy will prove effective in obstinate and recurrent catarrhal affections of the respiratory and gastro-intestinal tracts which have resisted all other treatment.

THE PURDUE FREDERICK CO.,
Sole Proprietors,
No. 15 Murray Street, New York.

The Serum Treatment Applied to Lockjaw.

The outbreak of what was called an epidemic of lockjaw caused by accidents with toy pistols at the last Fourth of July celebration promises to be productive of good results from the point of view of medical and surgical science, experiments which were conducted at the Roosevelt Hospital having proved the efficacy of the serum treatment. The remedy was only resorted to intra-cerebrally in cases that were of such a grave character as to call in any case of trephining, but it is said to be equally applicable subcutaneously, which of course is the method recommended where the disease is dealt with at an early enough stage. Much depends, it appears, on the qualtity of the serum used, that furnished by the Board of Health of New York City failing altogether while the antitetanic serum of a private firm produced the most favorable results.

The Tri-State Association of the Carolinas and Virgina.

The regular annual meeting of this Association will be held in Charleston, S. C., Tuesday, February 20th, 1900. A full attendance is assured.

Smallpox in the American Army.

The prevalence of smallpox among the American troops in the Philippines has lately caused much comment alike in medical circles and on the part of the general public. Dr. David P. Austin, of New York City, who has made a special study of the disease and maintains that persons specially exposed to infection should previously be immunized by repeated vaccination, attributes the greater prevalence of smallpox among the troops in the Philippines to what was experienced with the soldiers in the West Indies to the fact that the latter were recruited in the Eastern States where the laws in regard to vaccination are enforced with some regard to system, whereas the troops in the Philippines hail principally from the Pacific coast where the arrangements in regard to vaccination are very lax. Dr. Austin endorsed the advice of Dr. Wyman, Surgeon General of the Navy, to use nothing but glycinerized lymph with the view of avoiding impurities.

The following tale was recently told to his class by Professor Comstock, of Cornell (Medical Record), in speaking of the trials of scientists. It appears that a professor of invertebrate zoology in a sister university wished to procure some trichinous pork for purposes of experiment. The learned scientist went to his butcher and asked him if he ever got any measly pork. "Sometimes," the butcher cautiously answered, "but I always throw it away." "Well,", said the professor, "the next time you have any I wish you would send me up some," meaning, of course, to his laboratory. The butcher, although somewhat taken aback, said that he would. Three weeks passed, when the professor, growing impatient, again visited the store. "Haven't you found any measly pork yet?" "Why, yes," said the butcher, "I sent up two pounds a week ago." A sickly grin broke over the professor's face. "Where did you send it?" "Why, to your house, of course." said the butcher.

Two drops of camphor on your toothbrush will give your mouth the freshest, cleanest feeling imaginable, will make your gums rosy and absolutely prevent anything like cold sores or affections of your tongue.

Diabetes Mellitus and Its Proper Treatment

Glycosuria is a disease condition that we know perhaps very little about, especially concerning its etiology and pathology, but we all are doubtless only too familiar with the clinical picture of this fatal malady. Its onset is usually insidious and the patient is fairly in the grasp of a relentless monster before he is conscious of anything much the matter, and often any and all medication is of no avail to stop the steady progress of the disease and starvation comes in the midst of plenty.

The disease is clearly one of the metabolic functions of the system and has its seat in the nervous system inasmuch as no lesion has yet been found to constitute its morbid anatomy. The symptoms constituting the disease are, the presence of sugar in the urine, polyuria, excessive thirst and hunger with progressive and rapid loss of flesh and strength.

The amount of urine passed in the 24 hours may vary from 12 to 30 pints, containing from 2 to 12 per cent. of sugar. The specific gravity is variable, being at times as low as 1015, and again as high as 1060; urea and the phosphates are increased, reaction acid.

The interferance with the assimilative functions of the system is marked and the emaciation and loss of strength is usually rapid, notwithstanding the fact that the patient can eat a large quantity of food with seeming relish. This interference is in the alimentary canal and operates through the nervous system and must consist in some indistinguishable but real alteration of the absorptive villi.

The sugar of digestion is not properly changed as it is thrown forward into the lymph and blood channels and circulating in excessive amount in the general blood current the real assimilative agents, the capillaries and the cells, are unable to properly care for it. The kidneys standing guard over all such substances at once eliminates and so rids the blood of anything which cannot be utilized.

The loss of strength and flesh is only the expression of the amount of force and strength locked up in the sugar excreted by the kidney. In support of this view that the disease is essentially one of the nervous symptoms, witness the failure of the mental faculties as a characteristic element of the malady, the coma associated with an extreme degree of dyspnea both of inspiration and expiration, the so-called "air hunger" of Kussmaul, these all being nervous symptoms of some central degeneration. Other complications, or rather advanced symptoms of this disease are cardiac failure, eczema and pruritis, gangrene, albuminuria, opacity of the crystalline lens and the peculiar pneumonia. Even these show that the trouble is still mainly in the nervous system, especially those parts originating or transmitting trophic influences.

It also occurs most frequenily in those persons of a gouty or neurotic diathesis.

The determining cause may be exposure to cold, mental strain, injuries of the cerebrum, or excessive use of starchy and saccharine foods.

The classical treatment of this disease has always included a vigorous supervision of the patient's diet, under which he was denied all sugars and starches, in fact the carbohydrates in general were carefully shut off.

We have only to consider for a moment the important place occupied by these stuffs in the ordinary food of men to see what a hardship this would inflict. In truth, the patient is starving to death for these very foods which the well-meaning but misguided physician denies him.

Instead of shutting off the corn from the mill, our duty is to see that the rocks grind it into meal and so instead of shutting off these strength producing foods let us rather endeavor to assist the organism to properly appropriate them.

And our first place of duty is in the small intestines, our next the kidneys, and the third the heart and nervous system.

This seems like placing our first cause last in the indications for treatment, but the association of the small bowels and the nervous system, especially that part supplying the abdominal cavity, is so close and intimate that the two stand as regards treatment practically as one, and so by the nervous system of the third indication is meant more especially the central portions.

As regards the bowels, we must see that they are emptied thoroughly once a day, not by means of any irritant purgative which really has a constipating tendency, but by some tonic laxative as buckthorn or cascara. The kidneys should be treated by sedatives which will tend to allay their irritation and make them secrete less in the twenty-four hours and at the same time will not tend to derange or disorder other important organs.

Morphia and other agents so long used for this purpose while tending to influence the kidneys for good, so disorders the stomach and so interferes with the proper secretion of the glands of alimentation that we must use them with exceeding caution.

The old Western India drug jambul is best for this purpose, and especially the preparation known as eulexine, in which the tendency to constipation is entirely

overcome by the association of cascara.

And so while all the desirable virtues of this drug are retained the only objectionable feature is completely removed.

The effect of jambul in lessening the amount of sugar and urine excreted in diabetes has long been known, but it is only recently that a reliable, definite preparation has been placed upon the market.

For the heart and nervous system we desire a tonic stimulant, one that does not irritate or goad the delicate mechanism, and this is found in caffein.

At the same time we allow our patient something to eat, of course not all he wants, as his appitite is abnormal and his desire is simply craving, but we allow him a sufficiency of strengthening foods and the amount of sugar will diminish and the health will come back.

Eulexine, which may be new to some, is simply a preparation containing jambul, cascara and caffein as contained in mate dissolved in glycerine and aromatized. The dose is a teaspoonful, but in severe cases two teaspoonfuls may be given every four hours.

Such men as Skinner, Powell, Wilcox, Foskett, Wallace and others, have reported most excellent results from the use of this combination.

With the usual course and termination of this disease, in our mind, we must accept most gratefully this help and assistance in a most dire extremity.

A Case of Septicemia Post-Abortum.*

Mrs. Dr. A., age 23. Married 5 months. Aborted October 1. Was called to see her at noon, October 5. Found patient in bed, great difficulty in breathing, with pain in abdomen which was very tympanitic and sore, foul odor—very noticeable during examination. Gave history of previous good health, but continuous flow of blood from vagina for 5 days. On examination found clots of retained placenta. Temperature 103 deg. Pulse 122. Used curette and gave carbolized douche. 8 P. M.: Temperature 104 deg. Pulse 150. Gave stimulants and intra-uterine douche Borolyptol ʒii, and vaginal douche carbolized water. Consultation with Dr. H. P. Nelson. Prognosis very doubtful. Diaphoretics and stimulants ordered every half-hour.

Same day, 11.30 P. M.: Temperature 101.6 deg.; pulse 126. Vomitimg freely, mild perspiration, light sleep.

October 6, 5 A. M.: Temperature 104.4 deg.; pulse rapid and weak, skin dry—ordered diaphoretics every 15 minutes for 4 hours, and stimulants every hour. Surrounded with hot-water bottles.

2.30 P. M.: Temperature 104 deg.; Diaphoretics every 15 minutes. Stimulants every half-hour. Intra-uterine douche Borolyptol ʒii. 6 P. M. Temperature 103 deg.; pulse 130.

Consultation with Dr. A. McDiarmid. Curetted again under full anesthesia and used 1.3000-bichloride solution as douche—this procedure was followed by a severe chill, abdominal tenderness and involuntary bowel evacuations. At 8.30, temperature had risen to 105.5 deg.; pulse 140.

October 7, 10 A. M.: Temperature 100.2 deg.; pulse 108. During the day temperature rose gradually, and at 6 P. M. was 104.4 deg. Then gave intra-uterine douche bichloride 1.4000, which was followed, as before, by a severe chill, abdominal pain and involuntary bowel movements: at 9 P. M., temperature had risen to 106.4 deg., pulse 150, respiration 36; patient very restless.

October 8, 1 A. M.: Temperature 102.6 deg.; pulse 120. Stimulants and diaphoretics continued, but hot-water bottles removed. Temperature at 2.30 P. M. had dropped to 101 deg. Intra-uterine douche Borolyptol ʒii. Vaginal douche Borolyptol solution. After this temperature continued below 100 deg. until October 9, at 11 A.M., when it rose to 102.9 deg. Borolyptol douche repeated, several large clots washed away, no pain, no chills as after bichloride, but a rather restless night. Temperature continued low until noon, when Borolyptol intra-uterine douche again repeated, after which patient slept for 3 hours.

October 10, 10 A. M.; Temperature 100.2 deg. Borolyptol ʒii intra-uterine douche and a similar douche at 10 P. M. These douches were repeated twick a day until October 15, during which time temperature did not rise above 100 deg., discharge gradually decreased, and my attendance ceased October 21, when patient had fully recovered.

I am very much pleased with the action of Borolyptol in this case as compared with mercuric bichloride—no pain, chills, or rise of temperature followed its use, and its action was in every way superior to that of the sublimate.—*American Gynecological and Obstetrical Journal.*

*Robert H. Lawrence, M. D.. Chicago, Ill.

The average human system, it is said, is capable of consuming about three ounces of whiskey in twenty-four hours. More than this constitutes an excess, injures the system and is thrown off unchanged by the excretory organs.

Uric Acid; The Diseases Which it Provokes and the Treatment Which it Demands.

The researches of the illustrious Pasteur have shown us what a large number of diseases owe their existence to a common cause—infection; this, however, does not explain all. A close study of the blood and of the chemical changes which take place in the tissues, have revealed that a whole group of diseases heretofore ascribed to various causes, owe their origin to a common morbid tendency.

We now know that such apparently different diseases as gout, rheumatism, asthma, obesity, calculus, urticaria, eczema, migraine, neuralgia and hemorrhoids, really stand in the closest relationship to each other. In truth, they all require for their development, a particular soil which is the cause or the result of a peculiar state of the vital fluids and living tissues, a condition of diminished alkalinity, to which the French have given the name of acid dyscrasia.

This term is, of course, incorrect if interpreted literally, for we know that lfie is incompatible with actual acidity of the blood, but it expresses very well the fact that there is an increase in the normal proportion of acids which exist in the blood combined as salts.

These are important factors in diseases, for the slightest variation in their reciprocal relations profoundly influences health.

The blood, no doubt, contains many substances which have escaped our most perfected means of research; but there is at least one product of assimilation or disassimilation, as the case may be, which plays a preponderant *role* in many diseases.

This substance is Uric Acid, the presence of which, in gouty conditions, was revealed to us by Garrod.

Since this discovery, uric acid has been detected in many conditions other than gout.

What then, is the exact *role* which uric acid plays in disease, and in those slight deviations from health which hardly merit to be termed diseases?

Bouchard, in France, was one of the first to study the maladies which appeared to be associated with this peculiar acid diathesis; but he regards the acid as merely an incidental product of perverted cellular activity, which he describes as retarded oxidation.

Haig, on the other hand, boldly takes the opposite view, and in a very broad and comprehensive manner accords to uric acid itself, the primary and etiological *role* in a whole series of morbid states. Haig mentions three very important properties of uric acid, which if true, must be credited with a powerful influence on the functions of the human body.

Uric acid in the blood, he says, acts—

1. As a direct local irritant;
2. As an obstructor of capillaries;
3. As a cause of high-blood pressure.

It would seem that a most important factor in all the various processes is what may be described as an aberration of cellular activity, provoked by changes in the surrounding fluids.

The uric acid diathesis gives rise unquestionably to particular diseases of its own, as well as to a multitudinous array of symptoms which are often as vague and so indefinable, that the physician is often at a loss to determine the causal element.

Ricord was wont to say in his clinic at the Midi Hospital, that whenever a patient presented himself complaining of some vague ill-defined trouble, which did not admit of being classified in any of the usual pathological groups, he always suspected syphilis.

To-day we may say in another order of ideas, that, should a case present congestion of this or that organ; pains, neuralgia, migraine, digestive and urinary troubles, while we must not, of course jump immediately to conclusions and label everything uric acid, still, the urine should in every case be examined for it.

The uric acid diathesis having been demonstrated, most satisfactory results may be obtained by appropriate treatment; dietetic and medicinal.

Under this latter head, salicylates and colchicum are both of great efficacy, and it is a very remarkable fact that when salicylate of methyl is associated with colchicine, effects may be obtained that would necessitate a much larger dose of either of the drugs used isolately.

Salicylate of methyl obtained by distillation from the bark of betula lenta, is certainly to be preferred to all other preparations on account of its purity and its superior physiological effects over the synthetical salicylates, although similar in chemical characteristics.

This administered in a capsule with the alkaloid colchicine, is the basis of the pharmaceutical preparation known as Colchi-Sal, which we have used extensively with great success.

Methyl salicylate and colchicine are the great correctors of this peculiar uric acid diathesis, and their administration obviously embraces a very wide field of application, when we consider that gout, rheumatism, lithiasis, asthma, certain forms of bronchitis,

dyspepsia, urticaria, eczema, migraine, headache, neuralgia, and even chorea are amenable to the influence of this therapeutical combination, Colchi-Sal.

No remedy in our experience acts better in so-called bilious headache, which is merely a special manifestation of uricacidaemia. The gouty or arthritic nature of both urticaria and chorea is a fact which has but recently been substantiated, and, in these two affections, apparently so different, the salicylate medication is very efficacious.

It may be well to mention this connection that salicylate of methyl is readily absorbed through the skin, so that in all cases, it may be used with advantage in conjunction with the internal treatment.

It is not to be despised in chorea, which is so refractory to ordinary treatment, in fact, the recent report of Prof. Bozzolo of the Faculty of Turin, proves that the external application of methyl salicylate is very effectual in a large proportion of cases of chorea, especially those of which articular pains is a feature.

The essential oil of the bark of betula lenta, is a pure salicylate of methyl; it is rapidly absorbed by the skin, and traces are found in the urine five minutes after application, but it sometimes has the disadvantage of irritating the tegument.

The so-called Betul-Ol (methyl-oleosalicylate) is the most rapidly absorbed of all similar preparations, and, reacting in the blood, gives rise to the well understood antiseptic action (explained by Kohler's experiments,), at the very seat of the trouble, finally being eliminated as an alkaline salicylate. It is indicated therefore in all cases where salicylates are prescribed internally, as an adjunct of the general treatment, and sometimes it can be made to even constitute the entire treatment, when the stomach refuses the salicylates, which is exceedingly rare if capsules of Colchi-Sal (colchicine methyl salicylate) are used.

Dr. E. L. Gros,

Paris

Seaboard Medical Association, of Virginia and North Carolina.

The Seaboard Medical Association, of Virginia and North Carolina has its Third Annual Meeting at Newport News, Va., on the second Thursday in January 1900.

The Seaboard Medical Association, is composed chiefly of practicing physicians in the Eastern part of the above named States, and is not intended in any way to detract from, or to conflict with, respective State societies, but "per contra" to co-operate in any way which may be of mutual benefit.

The general topography and climatic influences being the same, the diseases prevalent in both sections bear close relationship. Hence the papers and discussions are all the more interesting and beneficial to those of the profession who practice in the East, Special mention might be made of the discussion of papers on "Malarial Haemoglobinuria" brought out at the last meeting of the Association at Wilson, N. C. January 1900, extracts of which were published in the leading Journals.

It is the expected that the next meeting will surpass all former ones, both in number of papers and discussions, as well as in point of attendance which will be exceptionally large.

The Executive Committee extend to you a most cordial invitation, and hope that you will certainly attend, and add your name to the ever increasing roster of members—if not already there—and also prepare a paper for the occasion on any professional subject which you may select, sending title of paper either to the President, Dr. Lucien Lofton, 230 N. Park Av., Norfork, Va., or to the Secretary, Dr. Jno. C. Rodman, Washington, N. C., not later than December 20th, 1899.

The Committee of Arrangements will secure reduced Railroad and hotel rates and provide comfortable accommodations.

The Mica-Plate Static Machine.

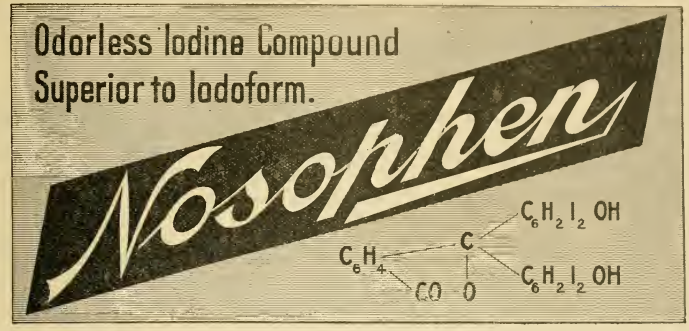
The improved condition of the modern static machine makes it an entirely practical instrument and those who would be fully equipped for the purposes of diagnosis and treatment must have one.

Unquestionably these machines give by far the best results in X Ray work, either for the fluroscope or the photographic plate. Among the static machines the mica-plates are coming to be used extensively instead of glass, as they possess all the good qualities of glass without its tendencies and liabilities.

A reproduction from the impression made upon an X Ray plate by a spark from the mica-plate static machine as made by R. V. Wagner & Co., shows a rich, long, fat spark full of forked lightning to beat the band.

Miss Lucye Gatling Cowper and Thomas Moore Riddick, M, D., were married in the St. Mary's Episcopal Church, Gatesville, North Carolina, Thursday, December 14th, 1899.

A host of friends within the profession will join with those without, in wishing them long life and joy and prosperity.



NOSOPHEN sup plies an ideal antiseptic dressing, used like iodoform and in all conditions in which the latter finds employment, either as powder or as a 3 per cent. nosophen-gauze It promotes rapid healing, causing healthy granulations to appear promptly, followed by rapid epidermization and cicatrization. It is odorless, strongly desiccative, tasteless and absolutely non-irritant. Toxic effects from its employment are impossible, and it may be used very effectively for internal administration as an intestinal antiseptic, but for this purpose a Bismuth Salt of Nosophen (Eudoxine) is specially prepared.

EUDOXINE has become widely recognized as a really effective intestinal antiseptic which is at the same time absolutely harmless, and, being tasteless, is pleasant to use. It may be administered for an unlimited period with absolute safety, rendering the drug especially valuable in the treatment of chronic intestinal troubles. Dose for adults is 5 to 15 grains three to five times daily, but larger doses may be given where required. Excellent results are reported from its employment in Typhoid Fever, Dysentery, Infantile Diarrhœa, Diarrhœa of Phthisis, Enteritis, and all catarrhal intestinal conditions, etc.

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Christian Science.†

Reader, doesn't it appear to you that this is somewhat a far-fetched and overstretched union of words, and expresses an incompatible combination of materiality with immateriality?

Doesn't it strike you that it is a "slip over the material border" into the field of the occult, and thus subject to the leading of *ignes fatuui"?*

If a "rose smells as sweet by any other name," doesn't it occur to you that this particular rose should have it? Why? Because Christian Science cannot be other than the science of Christianity, and the latter cannot be less than the utilization by fixation of the Christian spirit by man for the benefit of his (spiritual) immaterial life after death, and not for his body (on earth) —rather for its crucifixion.

If it is only necessary for one to think that he is well, in order to be well, would not his mentality usurp power beyond material free agency? Man's mentality is but operative materiality acting within prescribed limits, and his capacity of mind and body is under the law of limitation, as is all matter.

Were it otherwise, man would never be sick; indeed, he would occupy a semi-Eden before the apples came on the scene.

He would arrange his eternal home to his own notion, for he would have only to think himself a Christian.

His free agency permits him to arrange matter only under certain laws, and his cerebration (operative materiality) is as much under the law of limitation as any other matter, because it is the result of operative matter.

When cerebration ceases to be guided, and fails to act under the natural laws of limitation, it is likely to loose the power to sustain equilibrium and to hang like a material speck in the air, and thus becomes liable to be wafted in any direction by strong emotional "breezes."

The hygiene of man's nationality is under material laws. His immaterial health and happiness is subject to his peculiar operative mentality with free judgment as to direction. If he happens to take the proper direction the divines tell us he will find but one physician and one balm, but an unfailing specific for immaterial departing from the normal status.

If the adornments of the medical temples are worshiped for the gold instead of the spirit (philanthropic) which purifies these adornments, then, indeed, there cannot be much "Christian Science" in such "turns" of the "medical wheels," no matter by what names they may be called; and such "rose," however sweet the names, cannot have healthful odors.

Some of the late "flights" of medical science appears to be so erratic and eccentric as to puzzle the followers of regular medicine as to their objective points, whether they be to soothe the suffering of mankind, or to tickle their own ears with the "clink" of the yellow metal.

"But, how about suggestion," you very naturally ask, in this connection; don't regulars use it? Why certainly. It is the result of operative materiality, and as old in usage in some of its forms as is the brain of man.

It is not beyond the operative material field—not over the border into the occult—not outside the province of regular medicine, for it is operative matter, and regulars have always been using it. What regular physician does not know the interdependence of the mind and body? To be cheered or cast down by good or bad news; to have confidence in the physician are remedial agencies along (material) natural lines.

There is quite a difference between autogenic (self-created) immateriality and the mind of man which is created, and operates through created matter. If we call into effective use Creative Power then we are performing miracles, and can create, not only palliate.

Whilst material things and the results of operative materiality may be purchased with money, the power to perform miracles cannot be bought or sold, so we are told, and there are very few persons who do not believe this to be a fact.

To make a business of healing the body thus is not only against Divine, but also against (material) natural law.

To ignore a natural law is to defy Divine law, and to do the latter is to loose human balance, and be at the command of morbid immaterialities ever in conflict, "about and about," with the good of humanity here and hereafter.

†By Wm. S. Stoakley, M.D., Cheriton. Va.

Dr. J. B. Triplett Dead.

Dr. J. Bynum Triplett died very suddenly of heart disease at his home at Elk Park, N. C., on October 9th, 1899.

He was a man of superior intellect, of liberal education, versatile, and a prominent physician and surgeon of his country.

He was a graduate of the College of Physicians and Surgeons of Baltimore, Md., Class '88. He was twice married and leaves a widow and two sons, with a host of relatives and friends to mourn their loss.

STANDARD PREPARATIONS

Made for and Highly Endorsed by Medical Men Everywhere.

Unguentum Resinol. *Antipruritic, Antiphlogistic, Nutrient and Plerotic*

Elixir Cascanata. *Alterative, Laxative, Antacid and Secernent.*

Resinol Soap. *Prophylactic, Germicidal, Etc.*

"Resinol is the best remedy I have ever used in Pruritus Ani.
GEO. H. SMITH, M. D., Brooklyn, N. Y."

I have requested our druggists to carry UNGUENTUM RESINOL and RESINOL SOAP. They are all right.—A. E. EARLY, M. D., Kingman, Arizona.

RESINOL has given me entire satisfaction. Its wide range of usefulness especially recommends it.—LOUIS A. BOOKING, M. D., Louisville, Ky.

Am prescribing UNGUENTUM RESINOL with great satisfaction.—J. S. BEAUDRY, M. D., Chicago, Ill.

Have used RESINOL in many cases and am exceedingly pleased with its action.—G. E. WILDER, M. D., Sandusky, Ohio.

I cannot find anything that can take the place of RESINOL.—A. AGEE, M. D., Holbrook, Ky.

I have found RESINOL to be a remarkable cure for almost any type of Sore.—G. D. BOUDOUSQUIE, M.D. Tuscaloosa, Ala.

I have prescribed RESINOL in many cases and am very much pleased with it.—SAM'L G. SEWALL, M. D., 1 E. 121st St., New York.

I have prescribed UNGUENTUM RESINOL with great success in Eczema, Pruritis Ani and Pruritis Vulvæ.—WM. LAMBERT, M. D., Kansas City, Mo.

I am more than pleased with UNGUENTUM RESINOL.—C. B. WALRAD, M. D., Johnstown N. Y.

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A room has been fitted up at ST. PETER'S HOSPITAL with the most improved X-Ray apparatus. An eight-plate thirty-inch static machine is used to generate its current. This is the largest machine made for this kind of work and it produces its Rays in

A CLEAR AND POWERFUL STREAM.

The latest and most expensive accessories are used in connection with this machine making it the most powerful and complete outfit in the South at the present time.

Prices for Complete and Thorough Examinations will be $10.00 to $25.00.

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Winter Coughs—Grippal Neuroses.

That codeine had an especially beneficial effect in cases of nervous cough, and that it was capable of controlling excessive coughing in various lung affections, was noted before its true physiological action was understood. Later it was clear that its power as a nerve calmative was due, as Bartholow says to its special action on the pneumogastric nerve. Codeine stands apart from the rest of its group, in that it does not arrest secretion in the respiratory and intestinal tract. In marked contrast is it in this respect to morphine. Morphine dries the mucous membrane of the respiratory tract to such a degree that the condition is often made worse by its use; while its effect on the intestinal tract is to produce constipation. There are none of these disagreeable effects attending the use of codeine.

The coal-tar products were found to have great power as analgesics and antipyretics long before experiments in the therapeutical laboratory had been conducted to show their exact action. As a result of this laboratory work we know now that some of them are safe, while others are very dangerous. Antikamnia has stood the test of exhaustive trial, both in clinical and regular practice and has been proven free from the usual untoward after-effects which accompany, characterize and distinguish all other preparations of this class. Therefore Antikamnia and Codeine Tablets afford a very desirable mode of exhibiting these two valuable drugs. The proportions are those most frequently indicated in the various neuroses of the larynx as well as the coughs incident to lung affections, grippal conditions, etc.—*The Laryngoscope.*

Government and Spelling.

The Medical World is deeply interested in the conduct of our National Government and in the reformation of spelling.

The Medical Mirror, while agreeing with the World in regard to the government ownership of all public franchises, is not *en rapport* on the spelling question.

The Mirror thinks to reform our spelling would make things too easy and Jack would have all play and no work, but it is willing to compromise on the elimination of the diphthong.

The American Philological Association, according to the World, is trying to get the following resolution through Congress:

Resolved, That the Public Printer be and is hereby directed in all works for Congress and for the Departments begun after the passage of this resolution to adopt the following rules for amended spelling, except in educational and other works where a different orthography may be acquired:

First.—Drop "ue" at the end of words like "dialogue," "catalogue," etc.. where the preceding vowel is short. Thus, spell "demagog," "epilog," "synagog," etc. When the preceding vowel is long, as in "prorogue," "disembogue." etc., retain final letters as at present.

Second.—Drop final "e" in such words as "definite," "infinite," "favorite," etc., when the preceding vowel is short. Thus, spell "opposit," "preterit," "hypocrit," "requisit," etc. When the preceding vowel is long, as in "polite," "finite," "unite," etc,, retain present forms unchanged.

Third.—Drop final "te" in words like "quartette," "coquette," "cigarette," etc. Thus, spell "cigaret," "roset," "epaulet," "vedet," "gazet," etc.

Fourth.—Drop final "me" in words like "programme." Thus, spell "program," "oriflam," "gram," etc.

Fifth.—Change "ph" to "f" in words like "phantom," "telegraph," "phase," etc. Thus, spell "alfabet," "paragraf," "filosofy," "fonetic," "fotograf," etc.

Sixth.—Substitute "e" for the diphthongs "æ" and "œ" when they have the sound of that letter. Thus, spell "eolian," "esthetic," "subpena," "esofagus," "atheneum, etc.

N. B.—No change in proper names.

The members of the American Philological Association say that the scope of their work is constantly extending, and they have hope of getting favorable action by the Senate and House at Washington.

Phenalgin in Alcoholic Gastritis.

Acute gastritis caused by the excessive use of alcohol, resulting in a serious arrest of the digestive process, causing epigastric distress, gaseous eructations, headache and general nervous tremors, insomnia and other characteristic features connected with such cases, may be effectively treated with Phenalgin in 10 grain doses. This coal-tar product is sedative and stimulating, correcting hyperacidity of the stomach and exercising an analgesic and hypnotic effect over the entire range of the disease. It is especially indicated in cases where cardiac depressants must be carefully avoided. 10 grains of Phenalgin taken at night after dissipation and before retiring, will usually prevent disagreeable sequalæ.

Hippocrates, who lived over 2,000 years ago, knew only 234 species or kinds of plants. The number known at the present time by botanist numbers over 200,000.

LOOK FOR THE GREEN LABEL.

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THE HIGHEST TYPE OF FLUID MEDICINES.

A Novelty---In What?

In the recognition of the fact that certain drugs, containing volatile constituents upon which their therapeutic value depends, lose their medicinal properties in the process of drying, or through long or imperfect storage.

In all such cases

We use the **green or fresh root, bark or plant,** gathered especially for us when in their prime.

Some kinds are prepared fresh, Others partially or wholly dried

But all are gathered especially for our Laboratory; carefully handled and immediately prepared into Fluid Extracts. The menstruum employed is **Alcohol** selected for **strength and purity,** whereby the non-medicinal elements are rejected and the liability to deterioration avoided.

Fluid Extracts **thus prepared** are perfect representatives of the drugs from which they are made.

THEY ARE CLEAN. THEY ARE EASILY DISPENSED.

THEY ARE SIGHTLY. THEY ARE THERAPEUTICALLY RELIABLE.

Old, shop-worn or worm-eaten drugs, however carefully manipulated, will not yield a satisfactory product when made with weak alcohol and water, or with wood spirit as a menstruum. Is it any wonder that commercial Fluid Extracts, as a class, are termed by a leading medical writer—the "Great American Fraud?"

Watch your fluid extracts.

Merrell's Fluid Extracts from fresh, choice drugs are powerful instruments for good in the hands of the observant physician.

All wholesals druggists will supply them.

Please write "Merrell's" on your orders.

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ESTABLISHED 69 YEARS.

Creosote in Pneumonia.

The treatment of pneumonia by the administration of creosote, was first brought to the notice of the writer by a paper read by Dr. Van Zandt of Fort Worth, Texas, at a meeting of the North Texas Medical Association, some few years ago. In it the results claimed were very satisfactory and astonishing at times. Since that time I have used it in a number of cases and with the best of results.

In the text-books on the subject of pneumonia little or nothing is said of this line of treatment.

The published researches of Cassoute and Corgier, of Marseilles, speak very highly of its effects.

When we consider the good effects of creosote in tubercular trouble of the lungs, it would naturally follow that its effect on pneumonia would be beneficial, and experience with it proves it to be of the utmost benefit in this disease. I have used both the pure creosote and also creosote carbonate, and prefer the latter, as it is more palatable, agrees better with the stomach, and can be given in fuller doses.

My method is to give either drop doses of creosote every two hours, or 10 to 15 minims of creosotal in some simple menstruum. When given early in the attack, the results are almost specific; the temperature subsides, the respiration improves, and in the course of 24 hours the condition of our patient is so much improved that we sometimes doubt our diagnosis.

In later stages the results, while not so brilliant, yet are very satisfactory. The cough, pain and temperature subside. The character of the sputum is changed, and recovery is hastened.

And not only in pneumonia do we get such good results, but also in acute bronchitis as well.

The method is one worthy of trial, and one has only to use it to be convinced of its merits. Of course, the strength of the patient must be supported, the secretions and excretions attended to, and I am satisfied that we have in the creosote treatment as nearly a specific for this trouble as is known to-day.

J. A. Gracey, M. D.

Waxahachie, Texas.

The Proposed Southern National Park.

The Southern National Park Association has been organized in Asheville, N. C., at an inter-State convention of "all persons interested in forest preservation," for the purpose of promoting the establishment of a national park in the mountainous region of western North Carolina. The movement has the co-operation of the mayor, the board of aldermen, and the board of trade of Asheville. The board of trade's parks and forestry committee, of which Dr. C. P. Ambler is the secretary, and the forestry committee of the Buncombe County Medical Society, consisting of Dr. J. A. Burroughs, Dr. S. Westray Battle, Dr. J. A. Watson, and Dr. John Hey Williams, are also active in the matter. The association will endeavor to secure a congressional appropriation and the appointment of a commission to inquire into the desirability of establishing the proposed park and game preserve.

It is pointed out that the few national parks we now possess are all in the North, and that strong arguments in favor of maintaining timber reserves in Minnesota and elsewhere will be presented at the next session of congress. Apparently the South thinks its turn ought to come now, and we must say we think it is justified in so thinking. As Southern Pictures and Pencillings puts it, "the country has given millions to the development of the great Yellowstone Park with its curious formations and freaks of Nature and its dreary grandeur, and the Eastern States have their breathing places in the mountains and by the sea which have been secured to the people either by the trend of events or by governmental invention. These facts have been in the minds of the people of the Soueh as well as those who have visited and considered the conditions weighing on the people of the South and of the Carolinas in particular, and for many years—nearing a quarter of a century in fact—there has been more or less talk of the magnificent opportunities and the great advantages to the country at large in the establishment of a national park in the Blue Ridge or Great Smoky Mountains or connecting ranges."

Forestry has been too long neglected in the United States, as sanitation was until a little more than thirty years ago. The two protective movements touch each other at more than one point, and we can not doubt that the drawing of general interest in the preservation of what remains of our fast dissolving forests will go far to help along the efforts of sanitatians. That being the case, we feel that we have only to mention the matter to secure for our Asheville friends considerable co-operation by the medical profession throughout the country. A form of pertition to congress has been printed and circulated, and we do not doubt that it will be generally signed by physicians in all parts of the country.—*New York Medical Journal.*

IN SURGERY AND GYNECOLOGY,
IN DISEASES OF THE RESPIRATORY SYSTEM,
IN DISEASES OF THE DIGESTIVE SYSTEM,
IN DISEASES OF THE EYE AND EAR,
IN MALARIAL, TYPHOID AND ERUPTIVE FEVERS,
IN GENITO-URANARY AND CUTANEOUS DISEASES,

and in the general antiseptic treatment of disease of every character, Listerine has established an enviable reputation, thorough clinical test having demonstrated that no other one antiseptic is so well adapted to the general requirements of the Physician and Surgeon, for both internal and external use, as this carefully-prepared formula of essential oils, ozoniferous ethers, and benzo-boracic acid—all antiseptics and chemically compatible.

Literature on demand.

LAMBERT PHARMACAL COMPANY,

ST. LOUIS.

Sole Makers of Listerine.

Quinine in Malarial Hæmaturia.

Editor Journal:—I write to protest against the statement made by you in your editorial in the September issue of your most excellent Journal, page 246, that the reason quinine is not successfully used in malarial hæmaturia is that too small doses are given—that instead of 5 grains give 10 grains, etc.

Now it is all right for you to publish articles like the one in your August number by Dr. Eggleston supporting the quinine treatment, or one by some one else combatting that plan of therapy. But you sit as an umpire, and until the game is finished you should not decide.

You assume that the disease called malarial hæmaturia is really a form of malaria. If this assumption were correct, then quinine is indicated, but there are no grounds whatever for the belief that malaria is the thing we have to fight.

The germs of malaria attack the red blood corpuscles and destroy them, and are themselves destroyed by phagocytosis, and the stuff which passes out with the urine is full of this debris, coloring matter, some blood, etc., but there are now no malarial germs in the blood. Krauss, of Memphis, has demonstrated this fact time and time again, and no other microscopist has ever contradicted him. Then here, in the Yazoo-Mississippi Delta, where hæmaturia is very common, it is very rare for a doctor to prescribe quinine, because experience has taught us that it never does any good, and frequently does harm.

Dr. Eggleston puts the mortality rate at 40 per cent. If he will change his treatment, get rid of the idea of the pressence of malaria and drop his quinine, he will soon find that his mortality rate will decrease.

The malaria is all gone when the hæmaturic symptom appears, then the indications are to repair the damage done by elimination and tonics.

Because of the almost constant vomiting the purgation usually prescribed is calomel, which should be given regardless of the amount, but for its effect, say five to eight grains every three hours, until the bowels begin to act from it, then keep up this action with the hyposulphite of sodium in 30 to 60 grain doses every three hours when necessary.

As soon as the nausea is allayed (and the calomel will usually allay it) begin arsenic and iron and nourishment, and flush out the colon daily with warm water. This enema helps the kidneys to act and removes matter which if allowed to remain will be absorbed and poison the patient.

It was a long time before the doctors in this country would consent to do without quinine, thinking the condition was one of malaria instead of the effect of malaria.

"Quinine has no place in the therapy of malarial hæmaturia," so-called.

It is sometimes, of course, necessary to give other remedies, as strychnia or nitroglycerine, or, perhaps, some kidney stimulant as digitalis.

The treatment outlined above is rarely varied from, and the mortality rate should not be more than fifteen per cent.

It is all right to give the quinine up to the time when the hæmaturia comes on, but it should be stopped then.

Dr. Krauss has shown that in the morning there were intracorpuscular rings in profusion, a blood count of 3,250,000, and a hæmoglobin estimate of 45 per cent. In the evening a few extracorpuscular bodies, no intracorpuscular bodies, a blood count of 1,250,000, and a hæmoglobin estimate of 20 per cent.

What is the indication for quinine?

Yours truly,

D. S. Humphreys, M. D.

[I can hardly answer the doctor better than to quote the opening sentence of the editorial called in question: "As a matter "of fact perhaps the profession will always "be divided upon the question of giving "quinine in pernicious malarial fever," etc.

So far as acting as umpire goes I have no yearning for such a place, and the editorial was written as an expression of personal opinion, and the editor never dreamed that his decision in the matter would be taken as final, completely shutting off further experiments and work.

The doctor believes in his plan of treatment because it is upheld by his own experience and the testimony of those in whom he has confidence, and I believe in quinine in big doses for the very same reasons.

In regard to the doctor's questions, there are other causes for hæmaturia than the immediate presence of malarial parasite, as he is well aware, and one of them is the condition of a man's blood who, for lack of quinine, has gone on having chill after chill until his blood is so poor and thin that the plasmodium of malaria, or any other disease, cannot live in it. If a man in such a condition leaks blood, or what looks like blood, from his kidneys, what is the indication for quinina? What is the indication for a lock after the horse is stolen? What is the indication for a ligature after a man has bled to death?

No doctor, I am not an umpire, nor the son of an umpire, but I do claim the right to sit on the bleachers and root like the old scratch for the home team.]

6

HYDROZONE

(30 volumes preserved aqueous solution of H_2O_2)

IS THE MOST POWERFUL ANTISEPTIC AND PUS DESTROYER. HARMLESS STIMULANT TO HEALTHY GRANULATIONS.

GLYCOZONE

(C. P. Glycerine combined with Ozone)

IS THE MOST POWERFUL HEALING AGENT KNOWN.

These Remedies cure all Diseases caused by Germs.

Successfully used in the treatment of Chronic and Acute Ulcers (Specific or not),

Skin Diseases, Eczema, Psoriasis, Salt Rheum Itch, Barber's Itch, Poisoning Ivy, Acne, Etc.

Hydrozone, applied to any open diseased surface, destroys the pus leaving the tissues beneath in a healthy condition. Then **Glycozone,** being applied to the clean surface, stimulates healthy granulations and heals the sore.

Inflammatory and Purulent Diseases of the Ear. Otitis Media, Etc.

By means of a glass syringe, inject **Hydrozone,** either full strength or diluted, and complete the dressing with a small roll of cotton well impregnated with **Glycozone.**

Send for free 240-page book "Treatment of Diseases caused by Germs," containing reprints of 120 scientific articles by leading contributors to medical literature.

Physicians remitting 50 cents will receive one complimentary sample of each "Hydrozone" and Glycozone" by express, charges prepaid.

Hydrozone is put up only in extra small, small, medium, and large size bottles, bearing red label, white letters, gold and blue border with my signature.

Glycozone is put up only in 4-oz., 8-oz. and 16-oz. bottles, bearing a yellow label, white and black letters, red and blue border with my signature.

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A White Horse of Another Color.

The Medical News tells us of a Dr. Brown, practising in New York city, who met with one of those contingencies which probably very few men have the good fortune never to have experienced. Funds were low, and collections had to be made. So he made a list of those of his patients whose accounts were overdue. Among these was one Mr. Jones, who owed $25, and whom Dr. Brown telephoned as follows:

"Br-r-r-r-r." "Hello!"

"Is Mr. Jones in?" "Yes"

"Please tell him Dr. Brown is at the 'phone."

Presently came Mr. Jones, who began cheerily:

"Hello, old man. What's up?"

"Can you send me $25? I——"

"Why, certainly, old man——"

"I thank you kindly."

"Don't mention it, old boy. Say the word, and we'll double it. Where'll I send it?"

"To 411 West 44th street."

"Where?"

"411 West 44th street."

A pause.

"Who is this?"

"Dr. Brown."

"Oh. I thought this was my friend Brownell. Just excuse me a moment, Doctor, until I look at my check-book.

Another pause.

"I am really very sorry, Doctor, but on examination I find my account at the bank overdrawn. At the very first opportunity, etc., etc."

A Wonderful Operation.

The following veracious story appeared recently in an English weekly journal: "Yes, sir," said the American surgeon, "I have performed some wonderful operations. Perhaps the most suprising and most successful was after a railway accident. One of our prominent citizens was absolutely disemboweled by a fragment of the car. I was on the spot. There was some sheep grazing near by, and in a moment's time I had transferred the inside of one of those sheep to the palpating form of the man and sewed him up." "That man recovered, sir?" "Yes, sir; and he had lambs in the spring."—*South Cal. Prac.*

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Soiling the Family's Good Name.

The following appears as editorial comment on the American Medical Association in the June 17th number of the Philadelphia Medical Journal, referring to the late meeting at Columbus: In such a matter as personal ethics and dignity there was a most noteworthy absence of what has previously been an altogether too conspicuous presence of the guzzlers and "all nighters." Strange stories of "nothing stronger than lemonade, please, this year!" and the banquets, even that of the so-called American Medical Editors, were from stories in which the delight in witless filth has often been an astonishing element of attractiveness. "If this statement were true it was in bad taste to thus discuss it save in executive session.

This terrible arraignment of the A. M. A. records an exceedingly remarkable and sudden deformation. If such a sad state of moral degradation existed in the association, now that it has reformed, would it not have been proper and prudent for a member of the family to have kept mum about it? "It is a foul bird that soils its own nest." Is not the editor of the Philadelphia Medical Journal a member thereof, and was he not lately the President of the American Medical Editors Association?

Were matters in the A. M. A. ever so bad as above pictured? And if they were is it not rather unfraternal for a member of the family to go out and tell about it.—*Alienist and Neurologist.*

In Vienna recently, a robust young woman died with symptoms of poisoning ascribed to a green-silk waist. The perspiration made the color come out under the arms, where there happened to be some pimples.—*Medical Age.*

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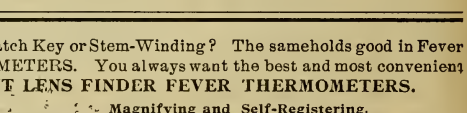

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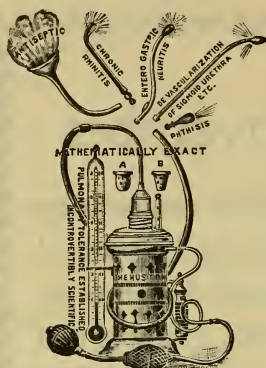

is the term justly applied by many physicians to the various spray methods of treating **Catarrh** and **Consumption.**

Not a drop of water employed with **The Huston Thermic Volatilizer and Inspirator** which is an absolutely scientific inhaler, differing **radically** from atomizers and sprays of every description, and is sold to the medical profession **on a positive guarantee.**

A remedial measure of distinct value hereby becomes really available by giving the patient all the advantages of (1) Lung Expansion, (2) Dry Heat, (3) Bronchial Passivity, (4) Antiseptic Agents in Gaseous Form.

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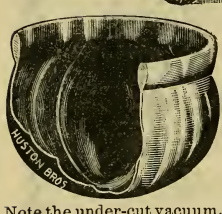

Note the under-cut vacuum.

"The Cup Shell," our latest Pessary, is far superior to all others and is **guaranteed.**

Made of a tereted alumina blank (simplex), as thin as an egg shell, has practically no weight and no rough or cutting edge, and is indispensable to gynæcologists for medicating, etc.

Made in 5 sizes, 6-8 in., ⅞ in., 1 in., 1⅛ in., and 1¼ in. each, with deep under-cut vacuum.

Price $1.00 each, or complete set $4.00.

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Pessaries of all styles and sizes. Write if interested in this line.

What's the Use of buying a poor **Hypodermic,** when you can get from us the best for less money? **We will send you a good one for $1. We will positively for $2,** if money accompanies the order, send **the Celebrated 3-piece Hypo.** (as shown in cut) in aluminum case with 6 vials **and A 1 Thermometer (lens front), all complete.**

No packing of any sort whatever used with this syringe. Your money back if you say so.

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SURGICAL INSTRUMENT MAKERS AND DEALERS.
FULL LINE PHYSICIANS' SUPPLIES.
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OUR OFFER: Cut this ad out and send to us, inclose a good sized sample of the **exact shade** wanted, and cut it out as near the roots as possible, inclose **our special price quoted and 5 cents extra** to pay postage, and we will make the switch to match your hair exact, and send to you by mail, postpaid, and if you are not perfectly satisfied, return it and we will immediately refund your money.

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65c.

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WRITE FOR FREE TRUSS CATALOGUE which shows our entire line of trusses, including the **New $10.00 Leg Truss** that cures almost any case, and which we sell for **$2.75**

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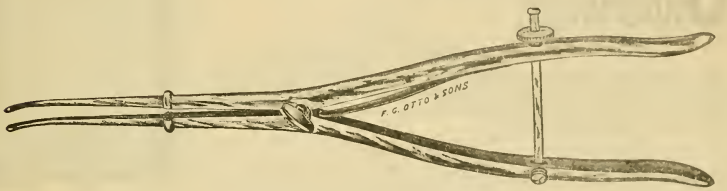

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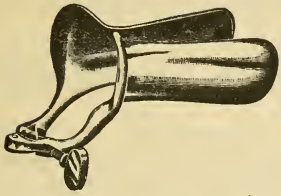

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Urethral Steel Sounds, 50 cents each. Flexible Uterine Sounds, 50 cents each.

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A REGULAR $5.00 WATERPROOF MACKINTOSH FOR **$2.75.**

Send no money. Cut this ad. out and send to us, state your height and weight, state number of inches around body taken over vest under coat, close up under arms, and we will send you this coat by express, C. O. D., subject to examination. Examine and try on at your express office, and if exactly as represented and the most wonderful bargain you ever saw or heard of and equal to any $5.00 coat on the market, pay the agent our **special manufacturers' price $2.75** and express charges.

THIS MACKINTOSH is the latest 1900 style, easy fitting, made from heavy waterproof, tan color, genuine Davis covert cloth; full length, double breasted, Sager velvet collar, fancy plaid lining, **waterproof, sewed** and **cemented** seams and guaranteed absolutely waterproof. Suitable for both **rain** or **overcoat** and guaranteed the greatest value ever offered by us or any other house. Free cloth samples of men's mackintoshes up to $5 00. Write for our prices on other goods. We are **manufacturers** direct to the consumer and can save you money. Address

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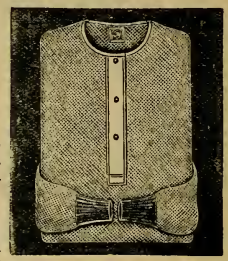

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The name of a German physician, who for years has been perfecting a fabric for underwear, which we pronounce the most scientific, sanitary, and comfortable garment made to be worn next the skin during all seasons of the year.

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The name of a fabric which will take up and give off moisture several times quicker than any other fabric. Adapted for underwear, for the reason that linen undergarments will absorb and dissipate perspiration so rapidly that it provides one with a dry climate around the body in place of a moist, which no other fabric will do.

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MORRHUOL has all the medicinal properties without the oily repulsiveness of Cod Liver Oil, and is therefore to be preferred in the treatment of **pulmonary catarrhs, scrofula** and **incipient consumption.** It promotes **appetite** and **nutrition, induces refreshing sleep,** and may be easily taken by children and adults in the form of capsules.

DOSE: 2 to 3 capsules for children and 3 to 6 capsules for adults, to be taken with meals.

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Each capsule contains one minim of the purest Creosote and three minims of Morrhuol.

MORRHUOL CREOSOTÉ has all the above properties—plus the merits of pure creosote, from which the caustic and obnoxious properties of commercial creosote have been eliminated.

It is especially indicated in the treatment of **tuberculosis, bronchial catarrh** and **excessive expectoration,** due to **softening** of the **pulmonary tissues.**

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Literature on Application.

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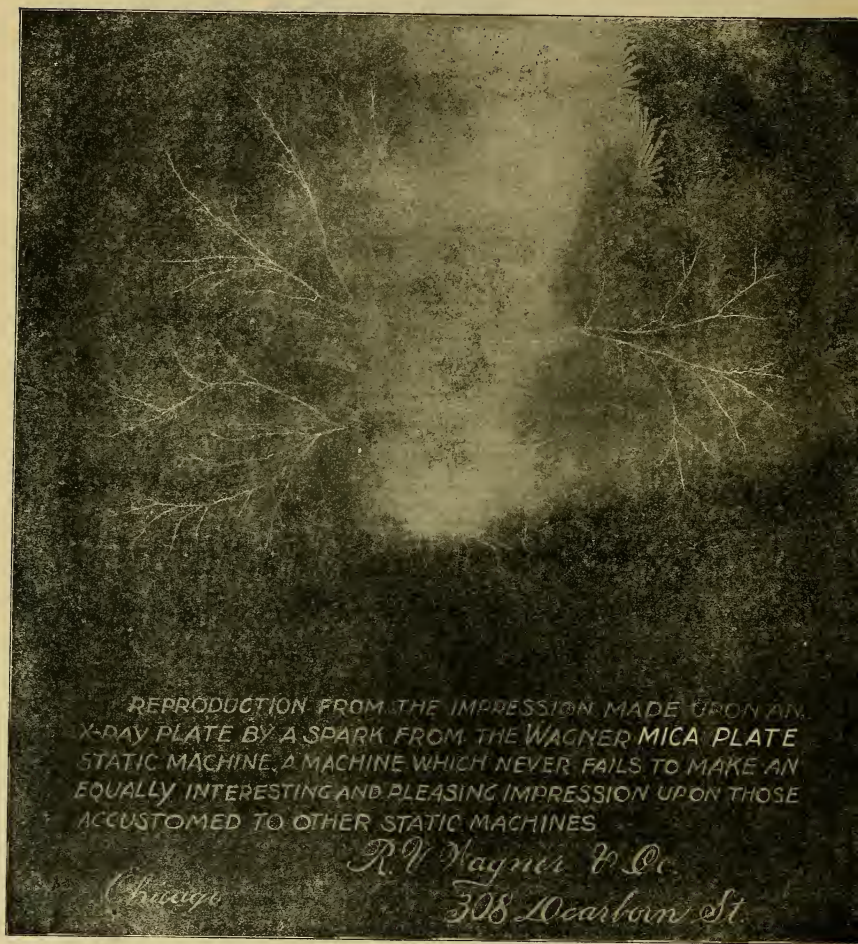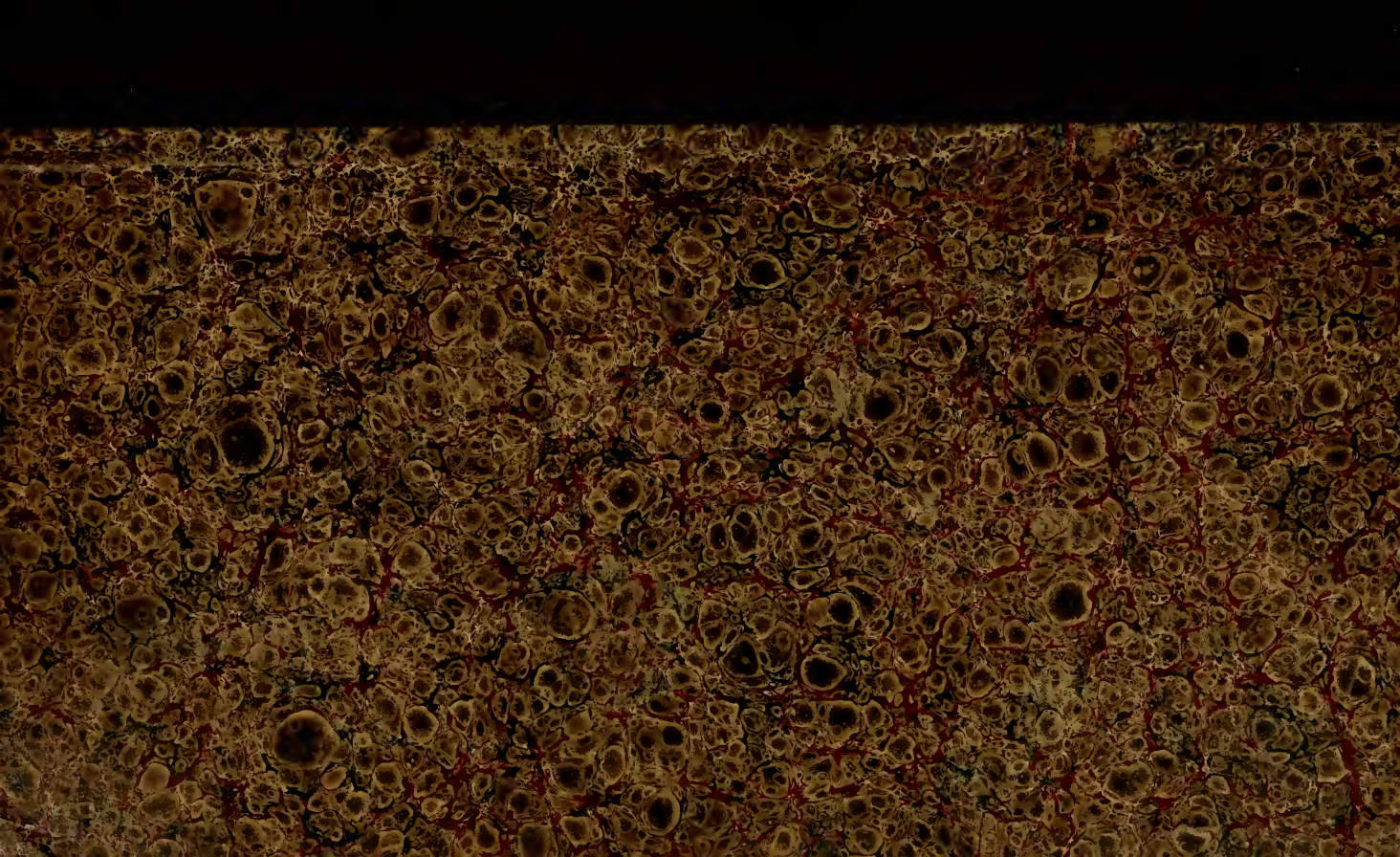
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